UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

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

For the quarterly period ended September 30, 2015

or

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

For the transition period from to

Commission File Number: 001-35068

ACELRX PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**41-2193603**
(State or other jurisdiction of incorporation or organization)	**(IRS Employer Identification No.)**

351 Galveston Drive
Redwood City, CA 94063
(650) 216-3500
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

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

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

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

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

As of October 21, 2015, the number of outstanding shares of the registrant's common stock was 44,445,109.

ACELRX PHARMACEUTICALS, INC.

QUARTERLY REPORT ON FORM 10-Q FOR THE QUARTER ENDED SEPTEMBER 30, 2015

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Unless the context indicates otherwise, the terms "AcelRx," "AcelRx Pharmaceuticals," "we," "us" and "our" refer to AcelRx Pharmaceuticals, Inc. "ACELRX" and "ACCELERATE, INNOVATE, ALLEVIATE" are U.S. registered trademarks owned by AcelRx Pharmaceuticals, Inc. This report also contains other trademarks and trade names that are the property of their respective owners.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

AcelRx Pharmaceuticals, Inc.

Condensed Consolidated Balance Sheets
(In thousands, except share data)

	September 30, 2015 (Unaudited)	December 31, 2014[1]
Assets		
Current Assets:		
Cash and cash equivalents	$ 95,042	$ 60,038
Short-term investments	9,291	15,312
Accounts receivable, net	17,376	—
Prepaid expenses and other current assets	883	948
Total current assets	122,592	76,298
Property and equipment, net	8,740	9,818
Restricted cash	178	250
Other assets	50	50
Total Assets	$ 131,560	$ 86,416
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	$ 1,701	$ 2,431
Accrued liabilities	2,342	3,654
Income taxes payable	771	—
Long-term debt, current portion	—	6,859
Deferred revenue, current portion	3,012	787
Liability related to the sale of future royalties, current portion	59	—
Total current liabilities	7,885	13,731
Deferred rent	441	529
Long-term debt, net of current portion	20,716	18,015
Deferred revenue, net of current portion	193	1,626
Liability related to the sale of future royalties, net of current portion	61,407	—
Contingent put option liability	319	282
Warrant liability	633	5,577
Total liabilities	91,594	39,760
Stockholders' Equity:		
Common stock, $0.001 par value—100,000,000 shares authorized as of September 30, 2015 and December 31, 2014; 44,445,109 and 43,712,363 shares issued and outstanding as of September 30, 2015 and December 31, 2014	44	43
Additional paid-in capital	232,579	225,423
Accumulated deficit	(192,659)	(178,806)
Accumulated other comprehensive income (loss)	2	(4)
Total stockholders' equity	39,966	46,656
Total Liabilities and Stockholders' Equity	$ 131,560	$ 86,416

(1) The condensed consolidated balance sheet as of December 31, 2014 has been derived from the audited financial statements as of that date included in the Company's Annual Report on Form 10-K for the year ended December 31, 2014.

See notes to condensed consolidated financial statements.

AcelRx Pharmaceuticals, Inc.

Condensed Consolidated Statements of Comprehensive Income (Loss)
(Unaudited)
(In thousands, except share and per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Revenue:				
Collaboration agreement	$ 13,863	$ 4,825	$ 14,530	$ 4,991
Contract	1,565	—	3,003	—
Total revenue	15,428	4,825	17,533	4,991
Operating expenses:				
Research and development	5,393	5,244	19,009	17,239
General and administrative	2,930	4,650	10,186	13,622
Restructuring costs	—	—	756	—
Total operating expenses	8,323	9,894	29,951	30,861
Income (loss) from operations	7,105	(5,069)	(12,418)	(25,870)
Other (expense) income:				
Interest expense	(713)	(816)	(2,296)	(1,818)
Interest income and other income (expense), net	(269)	6,556	1,915	8,153
Non-cash interest expense on liability related to sale of future royalties	(282)	—	(282)	—
Total other (expense) income	(1,264)	5,740	(663)	6,335
Net income (loss) before income taxes	5,841	671	(13,081)	(19,535)
Provision for income taxes	(772)	—	(772)	—
Net income (loss)	5,069	671	(13,853)	(19,535)
Other comprehensive income (loss):				
Unrealized gains (losses) on available-for-sale securities	1	1	6	(1)
Comprehensive income (loss)	$ 5,070	$ 672	$ (13,847)	$ (19,536)
Net income (loss) per share of common stock, basic	$ 0.11	$ 0.02	$ (0.31)	$ (0.45)
Net income (loss) per share of common stock, diluted	$ 0.11	$ (0.13)	$ (0.37)	$ (0.63)
Shares used in computing net loss per share of common stock, basic	44,406,933	43,469,354	44,209,726	43,332,013
Shares used in computing net loss per share of common stock, diluted – see Note 10	45,049,258	44,263,492	44,399,387	44,287,959

See notes to condensed consolidated financial statements.

AcelRx Pharmaceuticals, Inc.

Condensed Consolidated Statements of Cash Flows
(Unaudited)
(In thousands)

	Nine Months Ended September 30,	
	2015	**2014**
Cash flows from operating activities:		
Net loss	$ (13,853)	$ (19,535)
Adjustments to reconcile net loss to net cash used in operating activities:		
Non-cash interest expense on liability related to royalty monetization	282	—
Depreciation and amortization	1,502	469
Amortization of premium/discount on investments, net	81	187
Interest expense related to debt financing	691	514
Stock-based compensation	3,820	3,068
Revaluation of put option and PIPE warrant liabilities	(2,363)	(8,796)
Loss on disposal and impairment of property and equipment	509	—
Changes in operating assets and liabilities:		
Accounts receivable	(17,376)	—
Prepaid expenses and other assets	65	(226)
Restricted cash	72	—
Accounts payable	(564)	528
Accrued liabilities	(1,289)	(1,744)
Income taxes payable	771	—
Deferred revenue	792	9
Deferred rent	(88)	(9)
Net cash used in operating activities	(26,948)	(25,535)
Cash flows from investing activities:		
Purchase of property and equipment	(1,122)	(4,756)
Purchase of investments	(7,264)	(14,884)
Proceeds from maturity of investments	13,210	14,629
Net cash provided by (used in) investing activities	4,824	(5,011)
Cash flows from financing activities:		
Net proceeds from sale of future royalties	61,184	—
Proceeds from issuance of long-term debt	—	10,000
Payment of long-term debt	(4,534)	—
Payment of debt modification transaction costs	(215)	—
Net proceeds from issuance of common stock through equity plans and exercise of warrants	693	2,386
Net cash provided by financing activities	57,128	12,386
Net increase (decrease) in cash and cash equivalents	35,004	(18,160)
Cash and cash equivalents—Beginning of period	60,038	88,401
Cash and cash equivalents—End of period	$ 95,042	$ 70,241

See notes to condensed consolidated financial statements.

AcelRx Pharmaceuticals, Inc.

Notes to Condensed Consolidated Financial Statements
(Unaudited)

1. Organization and Summary of Significant Accounting Policies

The Company

AcelRx Pharmaceuticals, Inc., or the Company or AcelRx, was incorporated in Delaware on July 13, 2005 as SuRx, Inc., and in January 2006, the Company changed its name to AcelRx Pharmaceuticals, Inc. The Company's operations are based in Redwood City, California.

AcelRx is a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for the treatment of acute pain. AcelRx intends to commercialize its product candidates in the United States and license the development and commercialization rights to its product candidates for sale outside of the United States through strategic partnerships and collaborations. AcelRx may also consider the option to enter into strategic partnerships for its product candidates in the United States.

In September 2015, the Company reported that SAP301, a pivotal Phase 3 study for ARX-04 (sufentanil sublingual tablet, 30 mcg), met primary and secondary endpoints in a multi-center, double-blind, placebo-controlled trial designed to study the short-term treatment of patients with moderate-to-severe acute pain following ambulatory abdominal surgery. The Company believes ARX-04 may be a candidate for use in a variety of medically supervised settings to manage moderate-to-severe acute pain, including in the emergency room, or for post-operative patients, following either short-stay or ambulatory surgery.

The Company's other late-stage investigational product candidate, Zalviso™, delivers 15 mcg sufentanil sublingually through a non-invasive delivery route via a pre-programmed, patient-controlled analgesia device. In response to the New Drug Application, or NDA, the Company submitted to the U.S. Food and Drug Administration, or FDA, seeking approval for Zalviso, the Company received a Complete Response Letter, or CRL, on July 25, 2014. The FDA has requested an additional clinical study and the Company has submitted a protocol to the FDA for review. The Company is planning to begin this study, IAP312, in the first quarter of 2016 but likely will await comments on the protocol prior to study initiation.

On December 16, 2013, AcelRx and Grünenthal GmbH, or Grünenthal, entered into a Collaboration and License Agreement, which was amended effective July 17, 2015, or the Amended License Agreement, which grants Grünenthal rights to commercialize Zalviso in the countries of the European Union, Switzerland, Liechtenstein, Iceland, Norway and Australia. In September 2015, the European Commission approved the Marketing Authorization Application, or MAA, previously submitted to the European Medicines Agency, or EMA, for Zalviso for the management of acute moderate-to-severe post-operative pain in adult patients. The approval allows Grünenthal to market Zalviso in the 28 European Union member states as well as for the European Economic Area countries, Norway, Iceland and Liechtenstein, or EEA.

The Company has incurred recurring operating losses and negative cash flows from operating activities since inception and expects to continue to incur negative cash flows. Although Zalviso has been approved for sale in the European Union, the Company sold the majority of the royalty rights and certain commercial sales milestones it is entitled to receive under the Amended License Agreement with Grünenthal to PDL BioPharma, Inc., or PDL. As a result, the Company expects to continue to incur negative cash flows.

The Company has one business activity, which is the development and commercialization of product candidates for the treatment of pain, and a single reporting and operating unit structure.

When we refer to "we," "our," "us," the "Company" or "AcelRx" in this document, we mean the current Delaware corporation, or AcelRx Pharmaceuticals, Inc., and its predecessor, as well as its consolidated subsidiary.

Reclassifications

Certain prior year amounts in the condensed consolidated financial statements have been reclassified to conform to the current year's presentation.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary, ARPI LLC, which was formed in September 2015 for the sole purpose of facilitating the monetization transaction with PDL of the expected royalty stream and milestone payments due from the sales of Zalviso in the European Union by its commercial partner, Grünenthal, pursuant to the Amended License Agreement, or the Royalty Monetization. All intercompany accounts and transactions have been eliminated in consolidation. Refer to Note 6 "Liability Related to Sale of Future Royalties" for additional information.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States for interim financial information and the rules and regulations of the U.S. Securities and Exchange Commission, or SEC. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included.

Operating results for the three and nine months ended September 30, 2015, are not necessarily indicative of the results that may be expected for the year ending December 31, 2015. The condensed consolidated balance sheet as of December 31, 2014, was derived from the Company's audited financial statements as of December 31, 2014, included in the Company's Annual Report on Form 10-K filed with the SEC. These financial statements should be read in conjunction with the Company's Annual Report on Form 10-K for the year ended December 31, 2014, which includes a broader discussion of the Company's business and the risks inherent therein.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Management evaluates its estimates on an ongoing basis including critical accounting policies. Estimates are based on historical experience and on various other market-specific and other relevant assumptions that the Company believes 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 could differ from those estimates.

Significant Accounting Policies

The Company's significant accounting policies are detailed in its Annual Report on Form 10-K for the year ended December 31, 2014. During the nine months ended September 30, 2015, the Company has updated its concentration of risk policy to include its reliance on third parties for product manufacturing obligations under the Grünenthal Manufacturing and Supply Agreement, and its revenue recognition policy to include contract revenue, and royalties as discussed below. There are no other significant changes to the Company's significant accounting policies from those previously disclosed in its Annual Report on Form 10-K.

Concentration of Risk

The Company relies on a single third-party supplier for the supply of sufentanil, the active pharmaceutical ingredient in Zalviso, and various sole-source third-party contract manufacturer organizations to manufacture the Zalviso drug cartridge and device components, including the controller, the dispenser kit and the accessories.

Revenue Recognition - Contract Revenue

In May 2015, the Company entered into an award contract with the United States Army Medical Research and Materiel Command, or USAMRMC, to support the development of the Company's product candidate, ARX-04, referred to as DoD Contract. The DoD Contract provides for the reimbursement of qualified expenses for research and development activities as defined under the terms of the contract. Revenue under the contract is recognized when the related qualified research expenses are incurred. The Company is entitled to reimbursement of overhead costs associated with the study costs incurred under the DoD Contract. The Company estimates this overhead rate by utilizing forecasted expenditures. Final reimbursable overhead expenses are dependent on direct labor and direct reimbursable expenses throughout the life of the DoD Contract, so it may increase or decrease based on actual expenses incurred.

Non-Cash Interest Expense on Liability Related to Sale of Future Royalties

In September 2015, the Company sold certain royalty and milestone payment rights from the sales of Zalviso in the European Union by its commercial partner, Grünenthal, pursuant to the Collaboration and License Agreement, dated as of December 16, 2013, as amended, to PDL for an upfront cash purchase price of $65.0 million, referred to as the Royalty Monetization. The Company continues to have significant continuing involvement in the Royalty Monetization primarily due to an obligation to act as the intermediary for the supply of Zalviso to Grünenthal. Under the relevant accounting guidance, because of the Company's significant continuing involvement, the Royalty Monetization has been accounted for as a liability that will be amortized using the interest method over the life of the arrangement. In order to determine the amortization of the liability, the Company is required to estimate the total amount of future royalty and milestone payments to be received by PDL and payments the Company is required to make to PDL, up to a capped amount of $195.0 million, over the life of the arrangement. The sum of the capped amount of $195.0 million, less the $61.2 million of net proceeds the Company received will be recorded as interest expense over the life of the liability. Consequently, the Company imputes interest on the unamortized portion of the liability and record interest expense using an estimated interest rate for an arms-length debt transaction. The Company's estimate of the interest rate under the arrangement is based on the amount of royalty and milestone payments expected to be received by PDL over the life of the arrangement. The Company's estimate of this total interest expense resulted in an effective annual interest rate of approximately 14%. The Company will periodically assess the expected royalty and milestone payments using a combination of historical results, internal projections and forecasts from external sources. To the extent such payments are greater or less than its initial estimates or the timing of such payments is materially different than its original estimates, the Company will prospectively adjust the amortization of the liability and the interest rate.

The Company will record non-cash royalty revenues and non-cash interest expense within its condensed consolidated statement of operations over the term of the PDL agreement.

Recently Issued Accounting Standards

In May 2014, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers*, or ASU 2014-09, to provide guidance on revenue recognition. ASU 2014-09 requires a company to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies will need to use more judgment and make more estimates than under today's guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. In August 2015, the FASB issued Update No. 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, or ASU-2015-14, that provided for the adoption of the new standard for fiscal years beginning after December 15, 2017. Accordingly, ASU 2014-09 is effective for the Company in the first quarter of 2018. Early adoption up to the first quarter of 2017 is permitted. Upon adoption, ASU 2014-09 can be applied retrospectively to all periods presented or only to the most current period presented with the cumulative effect of changes reflected in the opening balance of retained earnings in the most current period presented. The Company is currently evaluating the method of adoption and the impact of adopting ASU 2014-09 on its results of operations, cash flows and financial position.

In April 2015, the FASB issued Accounting Standards Update No. 2015-03, *Interest—Imputation of Interest*, or ASU 2015-03. ASU 2015-03 will more closely align the presentation of debt issuance costs under U.S. GAAP with the presentation under comparable IFRS standards by requiring that debt issuance costs be presented on the balance sheet as a direct deduction from the carrying amount of the related debt liability, similar to the presentation of debt discounts or premiums. ASU 2015-03 is effective for fiscal years beginning after December 15, 2015 and is required to be applied retrospectively to all prior periods presented. As permitted by ASU 2015-03, the Company elected to early adopt this guidance beginning with the first quarter of fiscal 2015, in order to simplify the presentation of its debt issuance costs. The resulting reclassifications of unamortized debt issuance costs from other assets to long-term debt, net of current portion on the condensed consolidated balance sheets as of September 30, 2015 and December 31, 2014, was $23,000 and $31,000, respectively. Refer to Note 5 "Long Term Debt" for additional information.

2. Investments and Fair Value Measurement

Investments

The Company classifies its marketable securities as available-for-sale and records its investments at fair value. Available-for-sale securities are carried at estimated fair value based on quoted market prices or observable market inputs of almost identical assets, with the unrealized holding gains and losses included in accumulated other comprehensive income. Marketable securities which have maturities beyond one year as of the end of the reporting period are classified as non-current.

The table below summarizes the Company's cash, cash equivalents and investments (in thousands):

	As of September 30, 2015			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and cash equivalents:				
Cash	$ 88,994	$ —	$ —	$ 88,994
Money market funds	6,047	1	—	6,048
Total cash and cash equivalents	95,041	1	—	95,042
Marketable securities:				
U.S. government agency securities	9,290	1	—	9,291
Total marketable securities	9,290	1	—	9,291
Total cash, cash equivalents and investments	$ 104,331	$ 2	$ —	$ 104,333

	As of December 31, 2014			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and cash equivalents:				
Cash	$ 60,005	$ —	$ —	$ 60,005
Money market funds	33	—	—	33
Total cash and cash equivalents	60,038	—	—	60,038
Marketable securities:				
U.S. government agency securities	15,316	—	(4)	15,312
Total marketable securities	15,316	—	(4)	15,312
Total cash, cash equivalents and investments	$ 75,354	$ —	$ (4)	$ 73,350

As of September 30, 2015 and December 31, 2014, none of the available-for-sale securities held by the Company had material unrealized losses. There were no other-than-temporary impairments for these securities at September 30, 2015 or December 31, 2014. No gross realized gains or losses were recognized on the available-for-sale securities and, accordingly, there were no amounts reclassified out of accumulated other comprehensive income to earnings during the three and nine months ended September 30, 2015 and 2014.

As of September 30, 2015 and December 31, 2014, the contractual maturity of all investments held was less than one year.

Fair Value Measurement

The Company's financial instruments consist of Level I and Level II assets and Level III liabilities. Level I securities include highly liquid money market funds and are valued based on quoted market prices. For Level II instruments, the Company estimates fair value by utilizing third party pricing services in developing fair value measurements where fair value is based on valuation methodologies such as models using observable market inputs, including benchmark yields, reported trades, broker/dealer quotes, bids, offers and other reference data. Such Level II instruments typically include U.S. treasury and U.S. government agency obligations. As of September 30, 2015 and December 31, 2014, the Company held, in addition to Level I and Level II assets, a contingent put option liability associated with the Company's Amended and Restated Loan and Security Agreement, or the Amended Loan Agreement, with Hercules Technology II, L.P. and Hercules Technology Growth Capital, Inc., collectively referred to as Hercules, which amends and restates the loan and security agreement with Hercules dated as of June 29, 2011, or the Original Loan Agreement, and which was classified as a Level III liability. See Note 5 "Long-Term Debt," for further description. The Company's estimate of fair value of the contingent put option liability was determined by using a risk-neutral valuation model, wherein the fair value of the underlying debt facility is estimated both with and without the presence of the default provisions, holding all other assumptions constant. The resulting difference between the two estimated fair values is the estimated fair value of the default provisions, or the contingent put option. Changes to the estimated fair value of these liabilities are recorded in interest income and other income (expense), net in the condensed consolidated statements of comprehensive income (loss). The fair value of the underlying debt facility is estimated by calculating the expected cash flows in consideration of an estimated probability of default and expected recovery rate in default, and discounting such cash flows back to the reporting date using a risk-free rate. As of September 30, 2015 and December 31, 2014, the Company also held a Level III liability associated with warrants, or PIPE warrants, issued in connection with the Company's private placement equity offering, completed in June 2012. The PIPE warrants are considered a liability and are valued using the Black-Scholes option-pricing model, the inputs for which include exercise price of the PIPE warrants, market price of the underlying common shares, expected term, volatility based on a group of the Company's peers and the risk-free rate corresponding to the expected term of the PIPE warrants. Changes to any of the inputs can have a significant impact to the estimated fair value of the PIPE warrants. As of September 30, 2015, the Company remeasured on a non-recurring basis a portion of its leasehold improvements in its corporate offices using Level III valuation techniques. The write down to fair value of these long-lived assets resulted in an impairment charge of $0.5 million in the three months ended September 30, 2015, which was recorded in interest income and other income (expense), net in the condensed consolidated statements of comprehensive income (loss).

The following table sets forth the fair value of the Company's financial assets and liabilities by level within the fair value hierarchy (in thousands):

	As of September 30, 2015			
	Fair Value	Level I	Level II	Level III
Assets				
Money market funds	$ 6,048	$ 6,048	$ —	$ —
U.S. government agency obligations	9,291	—	9,291	—
Total assets measured at fair value	$ 15,339	$ 6,048	$ 9,291	$ —
Liabilities				
PIPE warrants	$ 633	—	—	$ 633
Contingent put option liability	319	—	—	319
Total liabilities measured at fair value	$ 952	$ —	$ —	$ 952

	As of December 31, 2014			
	Fair Value	Level I	Level II	Level III
Assets				
Money market funds	$ 33	$ 33	$ —	$ —
U.S. government agency obligations	15,312	—	15,312	—
Total assets measured at fair value	$ 15,345	$ 33	$ 15,312	$ —
Liabilities				
PIPE warrants	$ 5,577	—	—	$ 5,577
Contingent put option liability	282	—	—	282
Total liabilities measured at fair value	$ 5,859	$ —	$ —	$ 5,859

The following table sets forth the assumptions used in the Black-Scholes option-pricing model to estimate the fair value of the PIPE warrants as of September 30, 2015:

Market price	$ 3.05
Exercise price	$ 3.40
Risk-free interest rate	0.64%
Expected volatility	78.0%
Expected life (in years)	2.17
Expected dividend yield	0.0%

The following table sets forth the assumptions used in the Black-Scholes option-pricing model to estimate the fair value of the PIPE warrants as of December 31, 2014:

Market price	$ 6.73
Exercise price	$ 3.40
Risk-free interest rate	1.10%
Expected volatility	61.0%
Expected life (in years)	2.92
Expected dividend yield	0.0%

The following tables set forth a summary of the changes in the fair value of the Company's Level III financial liabilities for the three and nine months ended September 30, 2015 and September 30, 2014 (in thousands):

	Three Months Ended September 30, 2015	Nine Months Ended September 30, 2015
Fair value—beginning of period	$ 1,167	$ 5,859
Change in fair value of PIPE warrants	(283)	(2,401)
Exercise of PIPE warrants	—	(2,543)
Change in fair value of contingent put option associated with Original Loan Agreement with Hercules	68	37
Fair value—end of period	$ 952	$ 952

	Three Months Ended September 30, 2014	Nine Months Ended September 30, 2014
Fair value—beginning of period	$ 11,726	$ 13,445
Change in fair value of PIPE warrants	(6,964)	(8,241)
Exercise of PIPE warrants	—	(546)
Change in fair value of contingent put option associated with Original Loan Agreement with Hercules	(113)	(9)
Fair value—end of period	$ 4,649	$ 4,649

3. U.S. Department of Defense Contract

On May 11, 2015, the Company entered into an award contract supported by the United States Army Medical Research and Materiel Command, or USAMRMC, within the U.S. Department of Defense, or the DoD, in which the DoD agreed to provide up to $17.0 million to the Company in order to support the development of the Company's product candidate, ARX-04 (sufentanil sublingual tablet, 30 mcg), a proprietary, non-invasive, single-use tablet in a disposable, pre-filled single-dose applicator, or SDA, for the treatment of moderate-to-severe acute pain. The DoD Contract supports development of ARX-04 to perform Phase 3 clinical trials and manufacturing activities in order to submit an NDA to the FDA. Under the terms of the contract, the DoD will reimburse the Company for costs incurred for development, manufacturing and clinical costs outlined in the contract, including reimbursement for certain personnel and overhead expenses. The period of performance under the contract begins on May 11, 2015 and ends on November 10, 2016. The contract gives the DoD the option to extend the term of the contract and provide additional funding for the research. In addition, if ARX-04 is approved by the FDA, the DoD has the option to purchase a certain number of units of commercial product pursuant to the terms of the contract.

Revenue is recognized based on expenses incurred by the Company in conducting research and development activities, including overhead, as set forth in the agreement. Revenue attributable to the research and development performed under the DoD Contract, recorded as contract revenue in the condensed consolidated statements of comprehensive income (loss), was $1.6 million and $3.0 million for the three and nine months ended September 30, 2015, respectively. There was no such revenue recognized for the three and nine months ended September 30, 2014.

4. Collaboration Agreement

On December 16, 2013, AcelRx and Grünenthal, entered into a Collaboration and License Agreement, or the License Agreement, and related Manufacture and Supply Agreement, or the MSA, and together with the License Agreement, the Agreements. The License Agreement grants Grünenthal rights to commercialize Zalviso, the Company's novel sublingual patient-controlled analgesia, or PCA, system, or the Product, in the countries of the European Union, Switzerland, Liechtenstein, Iceland, Norway and Australia, or the Territory, for human use in pain treatment within or dispensed by hospitals, hospices, nursing homes and other medically-supervised settings, or the Field. The Company retains rights with respect to the Product in countries outside the Territory, including the United States, Asia and Latin America. Under the MSA, the Company will exclusively manufacture and supply the Product to Grünenthal for the Field in the Territory. On July 22, 2015, the Company entered into amendments to the License Agreement, or the License Amendment, and together with the License Agreement, the Amended License Agreement, and the MSA, or the MSA Amendment, and together with the MSA, the Amended MSA, between the Company and Grünenthal, each effective as of July 17, 2015, and together, the Amended Agreements.

In the Amended Agreements, the parties amended the Product supply configurations and packaging of Product components and accessories, and associated pricing therefor, which the Company will manufacture and supply to Grünenthal for the Territory. The parties agreed to increase the pricing of the Product components and accessories in exchange for a reduction of $5.5 million in the total milestone payments due from Grünenthal contingent upon achieving specified net sales targets from a total of $171.5 million to $166.0 million. The parties also updated the development plan for the Product in the Territory, providing for additional near-term development services to be rendered by AcelRx in exchange for payments by Grünenthal of $0.7 million. In accordance with the terms of the Amended MSA, AcelRx also received a binding Product forecast from Grünenthal for approximately $3.7 million.

Amended License Agreement

Under the terms of the Amended License Agreement, Grünenthal has the exclusive right to commercialize the Product in the Field in the Territory. The Company retains control of clinical development, while Grünenthal and the Company will be responsible for certain development activities pursuant to a development plan as agreed between the parties. The Company will not receive separate payment for such development activities, apart from the $0.7 million included under the Amended Agreements. Grünenthal is exclusively responsible for marketing approval applications and other regulatory filings relating to the sufentanil sublingual tablet drug cartridge for the Product in the Field in the Territory, while the Company is responsible for the CE Mark and other regulatory filings relating to device portions of the Product. In July 2014, Grünenthal submitted an MAA to the European Medicines Agency, or EMA, for Zalviso™ (15 micrograms sufentanil sublingual tablets) for the management of acute moderate-to-severe post-operative pain in adult patients. A CE Mark for Zalviso was obtained in the fourth quarter 2014 which specifies AcelRx as the device design authority and manufacturer. In September 2015, the European Commission approved the MAA for Zalviso for the 28 European Union member states as well as for the EEA.

The Company received an upfront non-refundable cash payment of $30.0 million in December 2013, and a milestone payment of $5.0 million related to the MAA submission in the third quarter of 2014. The Company was entitled to receive an additional $15.0 million milestone payment upon the approval of the MAA. The MAA was approved in September 2015. Under the Amended License Agreement, the Company is eligible to receive approximately $194.5 million in additional milestone payments, based upon successful regulatory and product development efforts ($28.5 million) and net sales target achievements ($166.0 million). Grünenthal will also make tiered royalty and supply and trademark fee payments in the mid-teens up to the mid-twenties percent range on net sales of Zalviso.

Unless earlier terminated, the Amended License Agreement continues in effect until the expiration of the obligation of Grünenthal to make royalty and supply and trademark fee payments, which supply and trademark fee continues for so long as the Company continues to supply the Product to Grünenthal. The Amended License Agreement is subject to earlier termination in the event the parties mutually agree, by a party in the event of an uncured material breach by the other party, upon the bankruptcy or insolvency of either party, or by Grünenthal for convenience.

Amended MSA

Under the terms of the Amended MSA, the Company will manufacture and supply the Product for use in the Field for the Territory exclusively for Grünenthal. Grünenthal shall purchase from AcelRx, during the first five years after the effective date of the MSA, 100% and thereafter 80% of Grünenthal's and its sublicensees' and distributors' requirements of Product for use in the Field for the Territory. The Product will be supplied at prices approximating the Company's manufacturing cost, subject to certain caps, as defined in the MSA Amendment. The MSA Amendment requires the Company to use commercially reasonable efforts to enter stand-by contracts with third parties providing significant supply and manufacturing services and, under certain specified conditions, permits Grünenthal to use a third party back-up manufacturer to manufacture the Product for Grünenthal's commercial sale in the Territory.

Unless earlier terminated, the Amended MSA continues in effect until the later of the expiration of the obligation of Grünenthal to make royalty and supply and trademark fee payments or the end of any transition period for manufacturing obligations due to the expiration or termination of the Amended License Agreement. The Amended MSA is subject to earlier termination in connection with certain termination events in the Amended License Agreement, in the event the parties mutually agree, by a party in the event of an uncured material breach by the other party or upon the bankruptcy or insolvency of either party.

The Company identified the following four significant non-contingent performance deliverables under the original Agreements: 1) intellectual property (license), 2) the obligation to provide research and development services, 3) the significant and incremental discount on the manufacturing of Zalviso for commercial purposes, and 4) the obligation to participate on the joint steering committee.

At the time the Amended Agreements were executed, with the exception of the intellectual property license, these obligations remained partially undelivered. Additionally, the Company identified the following three performance deliverables under the License Amendment and the MSA Amendment: 1) the obligation to provide additional research and development services, 2) the obligation to provide Zalviso demonstration device systems, and 3) the obligation to manufacture and deliver Product under the binding forecast. The Company determined that the License Amendment and MSA Amendment are modifications to the original Agreements.

The Company considered the provisions of the multiple-element arrangement guidance in determining whether the deliverables outlined above have standalone value and thus should be treated as separate units of accounting. The Company's management determined that the license under the original License Agreement had standalone value and represented a separate unit of accounting because the rights conveyed permitted Grünenthal to perform all efforts necessary to commercialize and begin selling the product upon regulatory approval. In addition, Grünenthal has the appropriate development, regulatory and commercial expertise with products similar to the product licensed under the agreement and has the ability to engage third parties to manufacture the product allowing Grünenthal to realize the value of the license without receiving any of the remaining deliverables. Grünenthal can also sublicense its license rights to third parties. Also, the Company's management determined that the research and development services, Zalviso demonstration device systems, joint steering committee participation, the significant and incremental discount on the manufacturing of Zalviso, and the obligation to manufacture and deliver Products each represent individual units of accounting, as Grünenthal could perform such services and/or could acquire these on a separate basis.

The Company believes that none of the deliverables have vendor-specific objective evidence, or VSOE, or sufficient third-party evidence, or TPE, of selling price, as none of them have been sold separately by the Company, and as there is only limited information about third party pricing for similar deliverables. Accordingly, the Company developed best estimates of selling prices, or ESP, for each deliverable in order to allocate the noncontingent arrangement consideration to the units of accounting, based on current information available as of the modification date.

The Company's management determined the best estimate of selling price for the license based on Grünenthal's estimated future cash flows arising from the arrangement. Embedded in the estimate were significant assumptions regarding regulatory expenses, revenue, including potential customer market for the product and product price, costs to manufacture the product and the discount rate. The Company's management determined the best estimate of selling price of the research and development services and committee participation based on the nature and timing of the services to be performed and in consideration of personnel and other costs incurred in the delivery of the services. For the discount on manufacturing services, the Company's management estimated the selling price based on the market level of contract manufacturing margin it could have received if it were engaged to supply products to a customer in a separate transaction, the estimated cost of manufacturing, and the anticipated volume of Grünenthal's orders over the course of the agreement, to which the discount would apply. For the Zalviso demonstration devices and the obligation to manufacture and deliver Product, the Company's management estimated the selling price based on the binding volume of such devices and Products, the estimated cost of manufacturing, and the market level of contract manufacturing margin. ESP of the license, research and development and committee participation services and the discount on manufacturing services were updated at the time the Amended Agreements were executed for purposes of allocating the amended arrangement consideration.

The Amended Agreements entitle the Company to receive additional payments upon the achievement of certain development and sales milestones. Based on ASC Topic 605-28, *Revenue Recognition — Milestone Method*, the Company evaluates contingent milestones at inception or modification of the agreement, and recognizes consideration that is contingent upon the achievement of a milestone in its entirety as revenue in the period in which the milestone is achieved only if the milestone is considered substantive in its entirety. Milestones are events which have the following characteristics: (i) they can be achieved based in whole or in part on either the Company's performance or on the occurrence of a specific outcome resulting from the Company's performance, (ii) there was substantive uncertainty at the date the agreement was entered into that the event would be achieved and, (iii) they would result in additional payments due to the Company. A milestone is considered substantive if the following criteria are met: (i) the consideration is commensurate with either (1) the entity's performance to achieve the milestone, or (2) the enhancement of the value of the delivered item (s) as a result of a specific outcome resulting from the entity's performance to achieve the milestone, (ii) the consideration relates solely to past performance and, (iii) the consideration is reasonable relative to all of the other deliverables and payment terms, including other potential milestone consideration, within the arrangement.

The substantive milestone payments will be recognized as revenue in their entirety upon the achievement of each substantive milestone. Based on the criteria noted above, the identified substantive milestones in the original Agreements pertain to post approval product enhancements, expanded market opportunities and manufacturing efficiencies for Zalviso. Each of these potential achievements is based primarily on the Company's performance and involves substantive uncertainty as achievement of these milestones requires future research, development and regulatory activities, which are inherently uncertain in nature. The Company determined that the consideration for each milestone was commensurate with the Company's performance to achieve the milestone, including future research, development, manufacturing and regulatory activities and that the consideration is reasonable relative to all of the other deliverables and payments within the arrangement. Aggregate potential payments for these milestones total $28.5 million.

In addition to substantive milestones, two milestones associated with the original Agreements were deemed not to be substantive. These milestones pertain to regulatory developments for Zalviso in Europe, which the Company's management deemed to be not substantive due to the high likelihood of achievement, both at inception of the original Agreements and at the time the Amended Agreements were executed. Aggregate potential payments for these milestones totaled $20.0 million. In July 2014, Grünenthal submitted an MAA to the EMA for Zalviso for the management of acute moderate-to-severe post-operative pain in adult patients, triggering the first of these two milestones. Under the terms of the Amended License Agreement with Grünenthal, the Company received a cash payment of $5.0 million in the third quarter of 2014. In September of 2015, the MAA was approved by the European Commission, triggering the second of these two milestones and making the Company entitled to receive $15.0 million. Amounts received under non-substantive milestones are allocated to performance deliverables based on the relative selling price method and recognized as appropriate for such deliverables.

The Amended Agreements also include milestone payments related to specified net sales targets, totaling $166.0 million. These milestones do not meet the definition of a milestone under ASU 2010-17 because the achievement of these milestones is solely dependent on counter-party performance and not on any performance obligations of the Company.

At the time the Amended Agreements were executed, approximately $33.3 million of revenue had been recognized, and $1.7 million remained unrecognized from the aggregate to-date consideration of $35.0 million received under the original Agreements. Upon execution of the Amended Agreements, the Company updated the allocation of this arrangement consideration, along with the consideration owed under the Amended Agreements, consisting of $0.7 million related to research and development services and the demonstration device systems, and $3.7 million related to the Product binding purchase forecast, to all of the identified deliverables in the arrangement (both delivered and undelivered) using their relative selling prices. Further, the $15.0 million non-substantive milestone achieved in September of 2015 was also allocated to the deliverables in the same manner. As a result of such allocations, additional amounts of $13.2 million and $0.5 million were allocated to the previously delivered license and research and development and committee participation services, respectively. A total of $4.4 million was allocated to the significant and incremental discount on manufacturing services, and is expected to be recognized over the period such discount is made available to Grünenthal, beginning in February 2016, on a straight-line basis over the estimated period through 2029. An additional $0.2 million has been allocated to committee participation services and is recognized on a straight-line basis over the performance obligation period extending through 2018. A total of $2.3 million was allocated to manufacturing services for the binding forecast of Products, and is expected to be recognized when the Products are delivered in the first quarter of 2016. The remaining $0.5 million was allocated to the additional research and development services under the Amended License Agreement and demonstration device systems, and manufacturing and delivery of the Products, and will be recognized as those services are performed or as the devices are delivered, as applicable.

Below is a summary of revenue recognized under the Amended Agreements during the three and nine months ended September 30, 2015 and 2014 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
License	$ 13,167	$ 4,560	$ 13,167	$ 4,560
Joint steering committee and research and development services	696	265	1,363	431
Total	$ 13,863	$ 4,825	$ 14,530	$ 4,991

As of September 30, 2015, the Company had current and noncurrent portions of the deferred revenue balance of $3.0 million and $0.2 million, respectively.

5. Long-Term Debt

Hercules Loan and Security Agreements

In June 2011, AcelRx entered into the Loan and Security Agreement, or the Loan Agreement, between the Company and with Hercules Technology II, L.P. and Hercules Technology Growth Capital, Inc., together, the Lenders, under which AcelRx borrowed $20.0 million in two tranches of $10.0 million each, represented by secured convertible term promissory notes. The Company's obligations associated with the agreement are secured by a security interest in substantially all of its assets, other than its intellectual property and those assets sold under the Royalty Monetization.

The Company borrowed the first tranche of $10.0 million upon the closing of the transaction on June 29, 2011 and borrowed the second tranche of $10.0 million in December 2011. The Company used a portion of the proceeds from the first tranche to repay the remaining obligations under that certain loan and security agreement between the Company and Pinnacle Ventures, L.L.C., or Pinnacle Ventures, dated September 16, 2008. The interest rate for each tranche was 8.50%. In connection with the loan, the Company issued Hercules seven-year warrants to purchase an aggregate of 274,508 shares of common stock at a price of $3.06 per share. See Note 7 "Warrants," for further description.

On December 16, 2013, AcelRx entered into an Amended and Restated Loan and Security Agreement with the Lenders, or the Amended Loan Agreement, under which the Company may borrow up to $40.0 million in three tranches. The loans are represented by secured convertible term promissory notes, collectively, the Notes. The Amended Loan Agreement amends and restates the Loan Agreement between the Company and the Lenders dated as of June 29, 2011. The Company borrowed the first tranche of $15.0 million upon closing of the transaction on December 16, 2013, and the second tranche of $10.0 million on June 16, 2014. The Company used approximately $8.6 million of the proceeds from the first tranche to repay its obligations under the Loan and Security Agreement with the Lenders. The Company recorded the new debt at an estimated fair value of $24.9 million as of December 31, 2014.

On September 24, 2014, the Company entered into Amendment No. 1 to the Amended Loan Agreement with Hercules. Amendment No. 1 extended the time period under which the Company could draw down the third tranche, of up to $15.0 million, from March 15, 2015 to August 1, 2015, subject to the Company obtaining approval for Zalviso from the FDA. The Company did not receive FDA approval of Zalviso by August 1, 2015 and as such, did not have access to the third tranche.

On September 18, 2015, concurrently with the closing of the Royalty Monetization, the Company entered into a Consent and Amendment No. 2, or Amendment No. 2, to the Amended Loan Agreement with the Lenders. Amendment No. 2 includes an interest only period from October 1, 2015 through March 31, 2016, with the potential for further extension to September 30, 2016 upon satisfaction of certain conditions. These conditions were satisfied in the third quarter of 2015 and the interest only period under the Amended Loan Agreement is October 1, 2015 through September 30, 2016. Loans under the Amended Loan Agreement mature on October 31, 2017. In connection with Amendment No. 2, the Company reduced the exercise price of the warrants already held by the Lenders, which are exercisable for an aggregate of 176,730 shares of Common Stock, from the previous exercise price of $6.79 per share to $3.88 per share, or the Warrant Amendments.

The interest rate for each tranche will be calculated at a rate equal to the greater of either (i) 9.10% plus the prime rate as reported from time to time in The Wall Street Journal minus 5.25%, and (ii) 9.10%. Payments under the Amended Loan Agreement were interest only until April 1, 2015, followed by equal monthly payments of principal and interest through September 30, 2015, to be followed by an interest only period from October 1, 2015 through September 30, 2016, and by equal monthly payments of principal and interest from October 1, 2016 through the scheduled maturity date on October 1, 2017, or the Loan Maturity Date. In addition, a final payment equal to $1.7 million will be due on the Loan Maturity Date, or such earlier date specified in the Amended Loan Agreement. The Company's obligations under the Amended Loan Agreement are secured by a security interest in substantially all of its assets, other than its intellectual property and those assets sold under the Royalty Monetization.

If the Company prepays the Amended Loan Agreement prior to maturity, it will pay Hercules a prepayment charge, based on a percentage of the then outstanding principal balance, 2% if the prepayment occurs after December 16, 2014, but prior to December 16, 2015, or 1% if the prepayment occurs after December 16, 2015.

Subject to certain conditions and limitations set forth in the Amended Loan Agreement, the Company has the right to convert up to $5.0 million of scheduled principal installments under the Notes into freely tradeable shares of the Company's common stock, or Common Stock. The number of shares of Common Stock that would be issued upon conversion of the Amended Notes would be equal to the number determined by dividing (x) the product of (A) the principal amount to be paid in shares of Common Stock and (B) 103%, by (y) $9.30 (subject to certain proportional adjustments as provided for in the Amended Loan Agreement).

The Amended Loan Agreement includes customary affirmative and restrictive covenants, but does not include any financial maintenance covenants, and also includes standard events of default, including payment defaults, breaches of covenants following any applicable cure period, a material impairment in the perfection or priority of Hercules' security interest or in the value of the collateral, and events relating to bankruptcy or insolvency. Upon the occurrence of an event of default, a default interest rate of an additional 5% may be applied to the outstanding loan balances, and Hercules may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Amended Loan Agreement.

In connection with the Amended Loan Agreement, the Company issued a warrant to each Lender which, collectively, are exercisable for an aggregate of 176,730 shares of common stock and each carried an exercise price of $6.79 per share. As mentioned above, in connection with Amendment No. 2, the Company reduced the exercise price of these warrants from the previous exercise price of $6.79 per share to $3.88 per share. See Note 7 "Warrants," for further description.

Upon an event of default, including a change of control, Hercules has the option to accelerate repayment of the Amended Loan Agreement, including payment of any applicable prepayment charges, which range from 1%-3% of the outstanding loan balance and accrued interest, as well as a final payment fee of $1.7 million. This option is considered a contingent put option liability, as the holder of the loan may exercise the option in the event of default, and is considered an embedded derivative, which must be valued and separately accounted for in the Company's financial statements. As the Amended Loan Agreement entered into on December 16, 2013 was considered an extinguishment, the contingent put option liability associated with the Loan Agreement, which had an estimated fair value of $32,000 at the time of the amendment, was written off as a part of the loss on extinguishment, and a new contingent put option liability was established. As of September 30, 2015 and December 31, 2014, the estimated fair value of the contingent put option liability was $319,000 and $282,000, respectively, which was determined by using a risk-neutral valuation model, wherein the fair value of the underlying debt facility is estimated both with and without the presence of the default provisions, holding all other assumptions constant. The resulting difference between the two estimated fair values is the estimated fair value of the default provisions, or the contingent put option. The fair value of the underlying debt facility is estimated by calculating the expected cash flows in consideration of an estimated probability of default and expected recovery rate in default, and discounting such cash flows back to the reporting date using a risk-free rate. The contingent put option liability was recorded as a debt discount to the loan and consequently a reduction to the carrying value of the loan. The contingent put option liability is revalued at the end of each reporting period and any change in the fair value is recognized in interest income and other income (expense), net in the condensed consolidated statements of comprehensive income (loss).

The Company performed an analysis of Amendment No. 2 to determine if it was a modification or extinguishment of the debt under the Amended Loan Agreement. The Company assumed immediate prepayment of both the pre-modification debt and post-modification debt, including the change in the fair value due to the Warrant Amendments, and concluded that Amendment No. 2 was a modification rather than an extinguishment of the debt.

As of September 30, 2015, the Company had outstanding borrowings under the Amended Loan Agreement of $20.7 million. Interest expense related to the Amended Loan Agreement was $0.7 million and $2.3 million for the three and nine months ended September 30, 2015, respectively.

6. Liability Related to Sale of Future Royalties

On September 18, 2015, the Company consummated the Royalty Monetization, in which it sold certain royalty and milestone payment rights to its newly formed wholly owned subsidiary, ARPI LLC, pursuant to a Purchase and Sale Agreement, or PSA. Subsequently, ARPI LLC sold the royalty and milestone payment rights to PDL for an upfront cash purchase price of $65.0 million, subject to a capped amount of $195.0 million pursuant to the Subsequent Purchase and Sale Agreement, or SPSA. Under the SPSA, PDL will receive 75% of the European royalties under the Amended License Agreement as well as 80% of the first four commercial milestones, worth $35.6 million (or 80% of $44.5 million), subject to the capped amount. The Company is entitled to receive 25% of the royalties, 20% of the first four commercial milestones, 100% of the remaining commercial milestones and all remaining development milestones of $43.5 million, including the $15.0 million payment for the approval of the Zalviso MAA.

The Company and ARPI LLC continue to retain certain duties and obligations under the Amended License Agreement. These include the collection of the royalty and milestones amounts due and enforcement of related provisions under the Amended License Agreement, among others. In addition, the Company must prepare a quarterly distribution report relating to the Amended License Agreement, containing among other items, the amount of royalty and milestone payments received, reimbursable expenses and set-offs. The Company and ARPI LLC must also provide PDL with notice of certain communications, events or actions with respect to the Amended License Agreement and infringement of any underlying intellectual property.

The Company has significant continuing involvement in the Royalty Monetization primarily due to an obligation to act as the intermediary for the supply of Zalviso to Grünenthal. Under the relevant accounting guidance, because of its significant continuing involvement, the Royalty Monetization has been accounted for as a liability that will be amortized using the interest method over the life of the arrangement. In order to determine the amortization of the liability, the Company is required to estimate the total amount of future royalty and milestone payments to be received by PDL and payments the Company is required to make to PDL, up to a capped amount of $195.0 million, over the life of the arrangement. The sum of the capped amount of $195.0 million, less the $61.2 million of net proceeds the Company received will be recorded as interest expense over the life of the liability. Consequently, the Company imputes interest on the unamortized portion of the liability and records interest expense. The Company's estimate of the interest rate under the arrangement is based on the amount of royalty and milestone payments expected to be received by PDL over the life of the arrangement. The Company's estimate of this total interest expense resulted in an effective annual interest rate of approximately 14%.

The Company will periodically assess the expected royalty and milestone payments using a combination of historical results, internal projections and forecasts from external sources. To the extent such payments are greater or less than our initial estimates or the timing of such payments is materially different than our original estimates, the Company will prospectively adjust the amortization of the liability and the interest rate.

The following table shows the activity within the liability account during the nine months ended September 30, 2015 (in thousands):

Liability related to sale of future royalties—beginning balance	$	—
Net proceeds from sale of future royalties		61,184
Non-cash interest expense recognized		282
Payments from AcelRx to PDL		—
Total liability related to sale of future royalties as of September 30, 2015		61,466
Less: current portion		(59)
Liability related to sale of future royalties, less current portion	$	61,407

As royalties are remitted to PDL from ARPI LLC as described in Note 1 "Organization and Summary of Significant Accounting Policies," the balance of the liability will be effectively repaid over the life of the agreement. The Company will record non-cash royalty revenues and non-cash interest expense within its condensed consolidated statements of comprehensive income (loss) over the term of the Royalty Monetization.

7. Warrants

Series A Warrants

As of September 30, 2015, warrants to purchase 3,425 shares of common stock had not been exercised and were still outstanding. These warrants expire in March 2017.

Hercules Warrants

In connection with the Amended Loan Agreement, executed in December 2013, the Company issued warrants to Hercules which were exercisable for an aggregate of 176,730 shares of common stock with an exercise price of $6.79 per share, or the Warrants. In connection with Amendment No. 2 to the Amended Loan Agreement, the Company reduced the exercise price of the warrants already held by the Lenders, which are exercisable for an aggregate of 176,730 shares of Common Stock, from the previous exercise price of $6.79 per share to $3.88 per share, or the Warrant Amendments. Each Warrant may be exercised on a cashless basis. The Warrants are exercisable for a term beginning on the date of issuance and ending on the earlier to occur of five years from the date of issuance or the consummation of certain acquisitions of the Company as set forth in the Warrants. The number of shares for which the Warrants are exercisable and the associated exercise price are subject to certain proportional adjustments as set forth in the Warrants. The Company estimated the fair value of these Warrants as of the issuance date to be $1.1 million, which was used in the estimating the fair value of the amended debt instrument and was recorded as equity. The fair value of the Warrants was calculated using the Black-Scholes option-valuation model, and was based on the original strike price of $6.79, the stock price at issuance of $9.67, the five-year contractual term of the warrants, a risk-free interest rate of 1.55%, expected volatility of 71% and 0% expected dividend yield. The Company estimated the fair value of the modification of the Warrants, or the Warrant Amendments, as of the issuance date to be $0.1 million, which was used in estimating the fair value of the amended debt instrument and was recorded as equity.

As of September 30, 2015, warrants to purchase 176,730 shares of common stock issued to Hercules had not been exercised and were still outstanding. These warrants expire in December 2018.

In connection with the Loan Agreement with Hercules, executed in June 2011, the Company issued to Hercules warrants to purchase an aggregate of 274,508 shares of common stock at a price of $3.06 per share, which were net exercised for 183,404 shares of common stock during the year ended December 31, 2013.

2012 Private Placement Warrants

In connection with the Private Placement, completed in June 2012, the Company issued PIPE warrants to purchase up to 2,630,103 shares of common stock. The per share exercise price of the PIPE warrants was $3.40 which equals the closing consolidated bid price of the Company's common stock on May 29, 2012, the effective date of the Purchase Agreement. The PIPE warrants issued in the Private Placement became exercisable six months after the issuance date, and expire on the five year anniversary of the initial exercisability date. Under the terms of the PIPE warrants, upon certain transactions, including a merger, tender offer, sale of all or substantially all of the assets of the Company or if a person or group shall become the owner of 50% of the Company's issued and outstanding common stock, which is outside of the Company's control, each PIPE warrant holder may elect to receive a cash payment in exchange for the warrant, in an amount determined by application of the Black-Scholes option-pricing model. Accordingly, the PIPE warrants were recorded as a liability at fair value, as determined by the Black-Scholes option-pricing model, and then marked to fair value each reporting period, with changes in estimated fair value recorded through the condensed consolidated statements of comprehensive income (loss) in interest income and other income (expense), net. The Black-Scholes assumptions used to value the PIPE warrants are disclosed in Note 2 "Investments and Fair Value Measurement."

Upon execution of the Purchase Agreement, the fair value of the PIPE warrants was estimated to be $5.8 million, which was recorded as a liability. As of September 30, 2015, the fair value of the PIPE warrants was estimated to be $0.6 million. The change in fair value for the three months ended September 30, 2015 was $0.3 million, which was recorded as other income, and the change in fair value for the nine months ended September 30, 2015 was $2.4 million, which was recorded as other income.

In March 2015, PIPE warrants to purchase 847,058 shares were net exercised for 527,101 shares of common stock. As of September 30, 2015, PIPE warrants to purchase 512,456 shares of common stock issued in connection with the Private Placement had not been exercised and were outstanding. These warrants expire in November 2017.

8. Stock-Based Compensation

The Company recorded total stock-based compensation expense for stock options, stock awards and the 2011 Employee Stock Purchase Plan as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Expenses:				
Research and development	$ 636	$ 568	$ 1,967	$ 1,607
General and administrative	535	631	1,853	1,461
Total stock-based compensation expense	$ 1,171	$ 1,199	$ 3,820	$ 3,068

As of September 30, 2015 there were 2,425,285 shares available for grant, 5,676,630 options outstanding and no restricted stock units outstanding under the Company's 2011 Equity Incentive Plan.

9. Restructuring Costs

On March 19, 2015, the Board of Directors of the Company, in connection with its efforts to reduce operating costs, conserve capital, focus the Company's financial and development resources on working with the FDA to seek marketing approval for Zalviso, and continuing development of ARX-04, implemented a cost reduction plan. The cost reduction plan reduced the Company's workforce by 19 employees, approximately 36% of total headcount, in the first quarter of 2015. Employee termination benefits related to this restructuring, are charged to restructuring costs in the condensed consolidated statements of comprehensive income (loss).

Restructuring costs for the three and nine months ended September 30, 2015 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Employee termination benefits	$ —	$ —	$ 756	$ —
Total restructuring costs	$ —	$ —	$ 756	$ —

The following table presents activities related to a cost reduction plan during the three and nine months ended September 30, 2015 (in thousands):

	Employee severance and related costs
Balance of restructuring liability at December 31, 2014	$ —
Charges	754
Payments	—
Balance of restructuring liability at March 31, 2015	754
Charges	2
Payments	(753)
Balance of restructuring liability at June 30, 2015	3
Charges	—
Payments	(3)
Balance of restructuring liability at September 30, 2015	$ —

The restructuring liability has been fully disbursed as of September 30, 2015.

10. Net Loss per Share of Common Stock

The Company's basic net loss per share of common stock is calculated by dividing the net loss by the weighted average number of shares of common stock outstanding for the period. The diluted net loss per share of common stock is computed by giving effect to all potential common stock equivalents outstanding for the period determined using the treasury stock method. For purposes of this calculation, options to purchase common stock and warrants to purchase common stock were considered to be common stock equivalents. In periods with a reported net loss, common stock equivalents are excluded from the calculation of diluted net loss per share of common stock if their effect is antidilutive.

During the three and nine months ended September 30, 2015, the PIPE warrants had a dilutive impact to net loss per share due to a lower share price at September 30, 2015, compared to the closing share price on June 30, 2015 and December 31, 2014. Similarly, during the three and nine months ended September 30, 2014, the PIPE warrants had a dilutive impact to net loss per share due to a lower share price at September 30, 2014, compared to the closing share price on June 30, 2014 and December 31, 2013. The decrease in share price created a lower Black-Scholes value and lower liability for the PIPE warrants, which resulted in other income during the three and nine months ended September 30, 2015, and the three and nine months ended September 30, 2014. The calculation of diluted net loss per share requires that, to the extent the average market price of the underlying shares for the reporting period exceeds the exercise price of the PIPE warrants and the presumed exercise of such securities are dilutive to loss per share for the period, adjustments to net loss used in the calculation are required to remove the change in fair value of the PIPE warrants for the period. Likewise, adjustments to the denominator are required to reflect the related dilutive shares.

The following table sets forth the computation of the Company's basic and diluted net loss per share of common stock during the three and nine months ended September 30, 2015 and 2014 (in thousands, except for share and per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
	(in thousands, except share and per share amounts)			
Numerator				
Net income (loss) used to compute net income (loss) per share:				
Basic	$ 5,069	$ 671	$ (13,853)	$ (19,535)
Adjustments for change in fair value of warrant liability	(283)	(6,418)	(2,401)	(8,241)
Diluted	$ 4,786	$ (5,747)	$ (16,254)	$ (27,776)
Denominator				
Weighted average shares outstanding used to compute net income (loss) per share:				
Basic	44,406,933	43,469,354	44,209,726	43,332,013
Dilutive effect of warrants	88,494	794,138	189,661	955,946
Dilutive effect of ESPP and stock options	553,831	—	—	—
Diluted	45,049,258	44,263,492	44,399,387	44,287,959
Net income (loss) per share — basic	$ 0.11	$ 0.02	$ (0.31)	$ (0.45)
Net income (loss) per share — diluted	$ 0.11	$ (0.13)	$ (0.37)	$ (0.63)

The following outstanding shares of common stock equivalents were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have been antidilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
ESPP and stock options to purchase common stock	3,606,683	5,381,477	5,784,402	5,381,447
Convertible debt into common stock	553,763	553,763	553,763	553,763
Common stock warrants	180,155	180,155	180,155	180,155

11. Commitments and Contingencies

Purchase Obligations

Purchase obligations consist of agreements to purchase goods or services that are enforceable and legally binding on us and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. These include obligations for product manufacturing and research and development.

We have purchase commitments with various sole source vendors for commercial inventory for Zalviso totaling $2.8 million at September 30, 2015 to supply raw materials in the fourth quarter of 2015 of approximately $0.7 million, and finished goods in the first quarter of 2016 of approximately $2.1 million.

Manufacturing Agreements

Patheon

In January 2013, the Company and Patheon Pharmaceuticals Inc., or Patheon, entered into a Manufacturing Services Agreement, or the Services Agreement, and a related Amended and Restated Capital Expenditure and Equipment Agreement, or the Capital Agreement, relating to the manufacture of sufentanil tablets, or the Product, for use with the Company's Zalviso drug product.

Under the terms of the Services Agreement, the Company has agreed to purchase, subject to Patheon's continued material compliance with the terms of the Services Agreement, all of its Product requirements for the United States, Canada and Mexico from Patheon during the Initial Term of the Services Agreement (as defined below), and at least eighty percent (80%) of its Product requirements for such territories after the Initial Term. In addition, Patheon will manufacture Product for the Company to support Grünenthal's commercialization of Zalviso in the European Union.

The term of the Services Agreement extends until December 31, 2017, or the Initial Term, and will automatically renew thereafter for periods of two years, unless terminated by either party upon eighteen months' prior written notice; provided, however, that the Services Agreement may not be terminated without cause prior to the end of the Initial Term.

The Company also entered into a Capital Expenditure and Equipment Agreement, or the Capital Agreement. Under the terms of the Capital Agreement, as amended in January 2014, or the Amended Capital Agreement, the Company has made and has the option to make certain future modifications to Patheon's Cincinnati facility and which would be the responsibility of the Company. If additional equipment and facility modifications are required to meet the Company's Product needs, the Company may be required to contribute to the cost of such additional equipment and facility modifications.

12. Related Party Transactions

Stephen Hoffman is a Senior Advisor to PDL and a member of the Company's Board of Directors, or the Board. The Board was aware of Dr. Hoffman's status as an interested party in the Royalty Monetization and Dr. Hoffman recused himself from all deliberations and actions taken by the Board with respect to the Royalty Monetization. Dr. Hoffman's consulting compensation from PDL is composed, in part, of a success fee which is formula driven based on a minimum dollar value of deals and the total dollar value of the deals concluded or funded in 2015. This determination is made at the end of 2015. Because the total dollar value of deals concluded or funded by PDL in 2015 is not known, the exact amount of the success fee potentially attributable to the AcelRx transaction is indeterminate. Depending on the total dollar value of deals concluded or funded in 2015 and subject to Dr. Hoffman rendering services for the entire fiscal year of 2015, PDL estimates the potential range attributable to the AcelRx transaction could be from $190,000 to $260,000.

13. Subsequent Events

On October 2, 2015, the Company executed an agreement to sublease 11,871 sq. of its space located at 301 Galveston Drive, Redwood City, California for a term of 26 months commencing on December 1, 2015. The sublessee is entitled to abatement of the first monthly installment of rent. Subsequent monthly installments of rent start at a rental rate of $2.05 per square foot (subject to agreed nominal increases). Upon the completion of the sublease, the Company has the option to take back the subleased space.

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

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are subject to the "safe harbor" created by those sections. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to them. In some cases you can identify forward-looking statements by words such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential" and similar expressions intended to identify forward-looking statements. Examples of these statements include, but are not limited to, statements related to the process and timing of anticipated future development of AcelRx's product candidates, ARX-04 (sufentanil sublingual tablet, 30 mcg) and Zalviso™ (sufentanil sublingual tablet system), including AcelRx's plans to seek a pathway forward towards gaining approval of Zalviso in the U.S.; the anticipated timing, design and results of the additional clinical trial for Zalviso; anticipated resubmission of the Zalviso New Drug Application, or NDA, to the U.S. Food and Drug Administration, or FDA, including the scope of the resubmission and the timing of the resubmission, and FDA review time; the anticipated timing of the Phase 3 SAP302 study for ARX-04; ability to fund ARX-04 development from the contract with the Department of Defense; the status of the Collaboration and License Agreement with Grünenthal or any other future potential collaborations, including potential milestones and royalty payments under the Grünenthal agreement; and the therapeutic and commercial potential of AcelRx's product candidates, including ARX-04 and Zalviso. These forward-looking statements are based on AcelRx Pharmaceuticals' current expectations and inherently involve significant risks and uncertainties. AcelRx Pharmaceuticals' actual results and timing of events could differ materially from those anticipated in such forward-looking statements, and as a result of these risks and uncertainties, which include, without limitations, risks related to AcelRx Pharmaceuticals' ability to finalize the pathway towards a resubmission of the Zalviso NDA to the FDA; potential additional clinical studies, Human Factor studies and/or additional data analysis necessary in order to resubmit the Zalviso NDA; AcelRx's ability to receive regulatory approval for Zalviso; any delays or inability to obtain and maintain regulatory approval of its product candidates, including ARX-04 in the United States and Europe, and Zalviso in the United States; AcelRx's ability to receive any milestones or royalty payments under the Grünenthal agreement and the timing thereof; ability to manufacture and supply sufficient quantities of Zalviso to Grünenthal on a timely basis; the uncertain clinical development process, including adverse events; the risk that planned clinical trials may not begin on time, have an effective clinical design, enroll a sufficient number of patients, or be initiated or completed on schedule, if at all; the success, cost and timing of all development activities and clinical trials, including the additional clinical trial for Zalviso and the Phase 3 ARX-04 SAP302 trial and the fact that the FDA may dispute or interpret differently clinical results obtained to date from the Phase 3 SAP301 study of ARX-04; AcelRx's ability to complete Phase 3 clinical development of ARX-04 and support ARX-04 development under the contract with the Department of Defense; the market potential for AcelRx's product candidates; the accuracy of AcelRx's estimates regarding expenses, capital requirements and the need for financing. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including the risks faced by us and described in Part II, Item 1A of this Quarterly Report on Form 10-Q and our other filings with the SEC. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this Quarterly Report on Form 10-Q. You should read this Quarterly Report on Form 10-Q completely and with the understanding that our actual future results may be materially different from those we expect. Except as required by law, we assume no obligation to update these forward-looking statements, whether as a result of new information, future events or otherwise.

The following discussion and analysis should be read in conjunction with the unaudited financial statements and notes thereto included in Part I, Item 1 of this Quarterly Report on Form 10-Q and with the audited consolidated financial statements and related notes thereto included as part of our Annual Report on Form 10-K for the year ended December 31, 2014.

About AcelRx Pharmaceuticals

We are a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for the treatment of acute pain. We intend to commercialize our product candidates in the United States and license the development and commercialization rights to our product candidates for sale outside of the United States through strategic partnerships and collaborations. We may also consider the option to enter into strategic partnerships for our product candidates in the United States.

ARX-04 (sufentanil sublingual tablet, 30 mcg)

ARX-04 is a non-invasive investigational product candidate consisting of 30 mcg sufentanil tablets delivered sublingually via a disposable, pre-filled, single-dose applicator, or SDA. We are developing ARX-04, a proprietary, non-invasive, single-use tablet in a disposable, pre-filled, single-dose applicator for the treatment of moderate-to-severe acute pain to be administered by a healthcare professional to a patient in medically supervised settings of acute pain. If approved, examples of potential settings where ARX-04 could be used include: emergency room patients; post-operative patients who are transitioning from the operating room to the recovery floor; patients who are recovering from either short-stay or ambulatory surgery and do not require more long-term patient-controlled analgesia; treatment of battlefield casualties; and patients being transported by paramedics. In December 2013, we completed an End-of-Phase 2 meeting with the U.S. Food and Drug Administration, or FDA, to identify a Phase 3 program pathway forward for evaluation of ARX-04.

On May 11, 2015, we entered into an award contract supported by the United States Army Medical Research and Materiel Command, or USAMRMC, within the U.S. Department of Defense, or the DoD, in which the DoD agreed to provide up to $17.0 million to support the development of ARX-04 to perform Phase 3 clinical trials and manufacturing activities in order to submit an New Drug Application, or NDA, to the FDA, referred to as the DoD Contract. Under the terms of the contract, the DoD will reimburse us for costs incurred for development, manufacturing and clinical costs outlined in the contract, including reimbursement for certain personnel and overhead expenses. The period of performance under the DoD Contract begins on May 11, 2015 and ends on November 10, 2016. The contract gives the DoD the option to extend the term of the contract and provide additional funding. In addition, if ARX-04 is approved by the FDA, the DoD has the option to purchase a certain number of units of commercial product pursuant to the terms of the contract.

In September 2015, we reported that SAP301, a pivotal Phase 3 multi-center, double-blind, placebo-controlled study of ARX-04, met primary and secondary endpoints in the short-term treatment of patients with moderate-to-severe acute pain following ambulatory abdominal surgery.

In October 2015, we announced the initiation of an open-label Phase 3 study, SAP302, of ARX-04 for the treatment of adult patients who present in the emergency room with moderate-to-severe acute pain associated with trauma or injury. The primary efficacy endpoint is the summed pain intensity difference, or SPID, over 1-hour, or SPID-1. Safety endpoints, such as adverse events and vital signs will also be assessed, as will the patients' and healthcare providers' satisfaction with the method of pain control. The study is expected to be completed in early 2016.

As part of our development program, we expect to meet with the FDA in December 2015 to review plans for an NDA for ARX-04.

Zalviso

Our product candidate, Zalviso™, is intended for the management of moderate-to-severe acute pain in hospitalized adult patients. Zalviso consists of sufentanil sublingual tablets, 15 mcg, delivered by the Zalviso System, a needle-free, handheld, patient-administered, pain management system (together, "Zalviso").

Zalviso is an investigational, pre-programmed, non-invasive, system to allow hospital patients with moderate-to-severe acute pain to self-dose with sufentanil sublingual tablets, 15 mcg, to manage their pain. Zalviso is designed to help address certain problems associated with post-operative intravenous patient-controlled analgesia, by offering:

- **A high therapeutic index opioid:** Zalviso uses sufentanil, an opioid that has a high therapeutic index. The therapeutic index is the ratio of the effective dose versus the lethal dose. In animal studies, the therapeutic index for sufentanil was approximately 100 times larger than fentanyl and 300 times larger than morphine.

- **A non-invasive route of delivery:** Zalviso utilizes a sufentanil tablet which allows for a sublingual (under the tongue) route of delivery. Sufentanil is highly lipophilic which provides for rapid absorption in the fatty cells (or mucosal tissue) found under the tongue, and for rapid transit across the blood-brain barrier to reach the mu-opioid receptors in the brain. The sublingual delivery used by Zalviso provides rapid onset of analgesia. The sublingual delivery system also eliminates the risk of IV-related analgesic gaps and IV complications, such as catheter-related infections. In addition, because patients do not require direct connection to an IV patient-controlled analgesia, or PCA, infusion pump through IV tubing, Zalviso allows for ease of patient mobility.

- **A simple, pre-programmed PCA solution:** Zalviso allows patients to self-dose sufentanil sublingual tablets via a pre-programmed, secure system designed to eliminate the risk of programming errors.

We submitted an NDA for Zalviso in September 2013 and, in December 2013, we announced that the FDA accepted for filing the Zalviso NDA. On July 25, 2014, the FDA issued a Complete Response Letter, or CRL, for our NDA for Zalviso. The CRL contains requests for additional information on the Zalviso System to ensure proper use of the device. The requests include submission of data demonstrating a reduction in the incidence of optical system errors, changes to address inadvertent dosing, among other items, and submission of additional data to support the shelf life of the product. There were no requests for additional clinical studies in the CRL. In the third quarter of 2014, we held a Type A meeting with the FDA to discuss the Zalviso CRL. During the meeting we discussed the resubmission of the Zalviso NDA and the steps necessary for the resubmission. In advance of resubmitting our Zalviso NDA, we agreed with the FDA to submit protocols for the bench testing and Human Factors, or HF, studies for their review and comment. In addition, the FDA requested in the minutes of the meeting that we provide a risk assessment that analyzes the risks associated with inadvertent dosing and the rationale that bench testing and HF studies are sufficient to address the specific items included in the CRL. We submitted the protocols and this rationale in the fourth quarter of 2014. In January 2015, we received feedback from the FDA on the protocol and the planned analysis of the results of the bench test. Based on the FDA feedback, no modifications to the conduct of the bench test were necessary; however, in response to the FDA's request, we refined the planned analysis of the bench test results. In February 2015, we received feedback from the FDA on the HF protocols. In this feedback, the FDA confirmed that the HF studies as proposed were acceptable to evaluate the design changes related to inadvertent dispensing of tablets. In March 2015, we received correspondence from the FDA stating that, in addition to the work we had performed to address items in the CRL, a clinical study is required to test the modifications to the Zalviso device. On April 21, 2015, we submitted a request to the Division of Anesthesia, Analgesia, and Addiction Products, or the Division, of the FDA for a Type B meeting. On May 1, 2015, the Division notified us that the request for a meeting was denied and restated the Division's view that a clinical study is required. Subsequently, we were granted a Type C meeting (previously identified as a General Advice meeting) with the FDA, which took place in early September 2015, to discuss their request for an additional clinical trial and our planned response to the CRL. We recently received formal minutes of this meeting. In the minutes, the FDA provided some additional details about the type of clinical data they would like us to provide, as a complement to the other data we already have provided, to assess the overall performance of Zalviso. We have submitted a protocol to the FDA for a clinical study in post-operative patients designed to evaluate the effectiveness of changes made to enhance product performance. We expect to be ready to initiate the study in the first quarter of 2016, but likely will await comments on the protocol from the FDA prior to study initiation.

On December 16, 2013, AcelRx and Grünenthal GmbH, or Grünenthal, entered into a Collaboration and License Agreement, which was amended effective July 17, 2015, or the Amended License Agreement, which grants Grünenthal rights to commercialize Zalviso in the countries of the European Union, or EU, Switzerland, Liechtenstein, Iceland, Norway and Australia, or the Territory. In September 2015, the European Commission approved the Marketing Authorization Application, or MAA, previously submitted to the European Medicines Agency, or EMA, for Zalviso for the management of acute moderate-to-severe post-operative pain in adult patients. The approval allows Grünenthal to market Zalviso in the 28 EU member states as well as for the European Economic Area countries, Norway, Iceland and Liechtenstein, or EEA. For additional information on the collaboration agreement with Grünenthal, see Note 4 "Collaboration Agreement" in the accompanying notes to the condensed consolidated financial statements.

Financial Overview

We have incurred net losses and generated negative cash flows from operations since inception and expect to incur losses in the future as we continue our research and development activities and pre-commercialization activities. As we pursue development of our product candidates, including regulatory review and potential commercial development, subject to FDA approval, of our product candidates, we expect the business aspects of our company to become more complex. In the future, we plan to add personnel and incur additional costs related to the maturation of our business and the potential commercialization of ARX-04 and Zalviso in the United States. In addition, we believe that continued investment in research and development is critical to attaining our strategic objectives. In order to develop our product candidates as commercially viable therapeutics, we expect to expend significant resources for expertise in manufacturing, regulatory affairs, clinical research and other aspects of pharmaceutical development.

To date, we have funded our operations primarily through the issuance of equity securities, borrowings, payments from our commercial partner, Grünenthal, monetization of certain future royalties and commercial sales milestones from the sales of Zalviso by Grünenthal, and our contracts with the DoD.

Our revenues since inception have consisted primarily of revenues from our Amended License Agreement with Grünenthal and our research contracts with the USAMRMC within the DoD. As mentioned above, in May 2015, the DoD agreed to provide us up to $17.0 million to support the development of ARX-04. The DoD Contract will support development of ARX-04 to perform Phase 3 clinical trials and manufacturing activities in order to submit an NDA to the FDA.

There can be no assurance that we will enter into other collaborative agreements or receive research-related contract awards in the future. We expect revenues to continue to fluctuate from period-to-period. There can be no assurance that our relationship with our existing commercial partner, Grünenthal, will continue beyond the initial term, or that we will be able to meet the milestones specified in the Amended License Agreement, or that the DoD Contract will result in an NDA submission for ARX-04, or that we will obtain marketing approval for any of our product candidates outside of Zalviso in the EU and EEA and subsequently generate revenue from those product candidates in excess of our operating expenses.

Our net income for the three months ended September 30, 2015 was $5.1 million and our net loss for the nine months ended September 30, 2015 was $13.9 million, respectively. As of September 30, 2015, we had an accumulated deficit of $192.7 million. As of September 30, 2015, we had cash, cash equivalents and investments totaling $104.3 million compared to $75.4 million as of December 31, 2014.

On September 18, 2015, we sold a portion of the expected royalty stream and commercial milestones from the sales of Zalviso in the EU by Grünenthal to PDL BioPharma, Inc., or PDL, or the Royalty Monetization. The Company received gross proceeds of $65.0 million in the Royalty Monetization.

In the first step of the Royalty Monetization, we sold certain royalty and milestone payment rights to our newly formed wholly owned subsidiary, ARPI LLC, pursuant to a Purchase and Sale Agreement, or PSA. In the second step of the Royalty Monetization, ARPI LLC sold the royalty and milestone payment rights to PDL for an upfront cash purchase price of $65.0 million, subject to a capped amount of $195.0 million pursuant to the Subsequent Purchase and Sale Agreement, or SPSA. Under the SPSA, PDL will receive 75% of the European royalties under the Amended License Agreement with Grünenthal, as well as 80% of the first four commercial milestones worth $35.6 million (or 80% of $44.5 million), subject to the capped amount of $195.0 million. We are entitled to receive all remaining amounts under the Amended License Agreement which include 25% of the European royalties, 20% of the first four commercial milestones, 100% of the remaining commercial milestones and all development milestones of $43.5 million, including the $15.0 million payment for the approval of the Zalviso MAA, which the European Commission approved in September 2015.

The total liability related to sale of future royalties to PDL as of September 30, 2015 was $61.5 million.

On December 16, 2013, we entered into an Amended and Restated Loan and Security Agreement with Hercules Technology II, L.P. and Hercules Technology Growth Capital, Inc., together, the Lenders, or the Amended Loan Agreement, under which we may borrow up to $40.0 million in three tranches. The loans are represented by secured convertible term promissory notes, collectively, the Notes. The Amended Loan Agreement amends and restates the Loan and Security Agreement between AcelRx and the Lenders dated as of June 29, 2011. We borrowed the first tranche of $15.0 million upon closing of the transaction on December 16, 2013, and the second tranche of $10.0 million on June 16, 2014. We used approximately $8.6 million of the proceeds from the first tranche to repay our obligations under the Loan and Security Agreement with the Lenders. We recorded the new debt at an estimated fair value of $24.9 million as of December 31, 2014.

On September 24, 2014, we entered into Amendment No. 1 to the Amended Loan Agreement with Hercules. Amendment No. 1 extended the time period under which we could draw down the third tranche, of up to $15.0 million, from March 15, 2015 to August 1, 2015, subject to AcelRx obtaining approval for Zalviso from the FDA. We did not receive FDA approval of Zalviso by August 1, 2015 and as such, did not have access to the third tranche.

On September 18, 2015, concurrently with the closing of the Royalty Monetization, we entered into a Consent and Amendment No. 2, or Amendment No. 2, to the Amended Loan Agreement with the Lenders. Amendment No. 2 includes an interest only period from October 1, 2015 through March 31, 2016, with the potential for further extension to September 30, 2016 upon satisfaction of certain conditions. These conditions were satisfied in the third quarter of 2015 and the interest only period under the Amended Loan Agreement is October 1, 2015 through September 30, 2016. After the expiration of the interest only period, we will make 13 monthly payments of $1.7 million beginning in October 2016 through October 2017. In addition, a final payment equal to $1.7 million will be due in October 2017.Loans under the Amended Loan Agreement mature on October 31, 2017. In consideration for the modifications made in Amendment No. 2, we reduced the exercise price of the warrants already held by the Lenders, which are exercisable for an aggregate of 176,730 shares of Common Stock, from the previous exercise price of $6.79 per share to $3.88 per share, or the Warrant Amendments. These warrants expire on the earlier to occur of five years from the date of issuance, or December 16, 2018, or the consummation of certain acquisitions of AcelRx, as set forth in the warrants.

The interest rate for each tranche will be calculated at a rate equal to the greater of either (i) 9.10% plus the prime rate as reported from time to time in The Wall Street Journal minus 5.25%, and (ii) 9.10%. Payments under the Amended Loan Agreement are interest only until April 1, 2015 followed by equal monthly payments of principal and interest through the scheduled maturity date on October 1, 2017, or the Loan Maturity Date. In addition, a final payment equal to $1.7 million will be due on the Loan Maturity Date, or such earlier date specified in the Amended Loan Agreement. Our obligations under the Amended Loan Agreement are secured by a security interest in substantially all of our assets, other than our intellectual property and those assets sold under the Royalty Monetization.

As of September 30, 2015, the outstanding principal owed to Hercules was $20.7 million.

On December 16, 2013, we and Grünenthal entered into a Collaboration and License Agreement, or the License Agreement, and related Manufacture and Supply Agreement, or the MSA, and together with the License Agreement, the Agreements. The License Agreement grants Grünenthal rights to commercialize Zalviso, or the Product, in the Territory for human use in pain treatment within or dispensed by hospitals, hospices, nursing homes and other medically-supervised settings, or the Field. The Company retains rights with respect to the Product in countries outside the Territory, including the United States, Asia and Latin America. Under the MSA, we will exclusively manufacture and supply the Product to Grünenthal for the Field in the Territory. On July 22, 2015, we entered into amendments to the License Agreement, or the License Amendment, and together with the License Agreement, the Amended License Agreement, and the MSA, or the MSA Amendment, and together with the MSA, the Amended MSA, between AcelRx and Grünenthal, each effective as of July 17, 2015, and together, the Amended Agreements.

In the Amended Agreements, the parties amended the Product supply configurations and packaging of Product components and accessories, and associated pricing therefor, which we will manufacture and supply to Grünenthal for the Territory. The parties agreed to increase the pricing of the Product components and accessories, while reducing the total milestone payments due from Grünenthal contingent upon achieving specified net sales targets from a total of $171.5 million to $166.0 million. As mentioned above, PDL will receive 75% of the European royalties under the Amended License Agreement with Grünenthal, as well as 80% of the first four commercial milestones worth $35.6 million (or 80% of $44.5 million), subject to the capped amount of $195.0 million. The parties also updated the development plan for the Product in the Territory, providing for additional near-term development services to be rendered by AcelRx in exchange for payments of approximately $0.7 million, primarily in 2015. Simultaneously, AcelRx also received a binding Product forecast from Grünenthal for approximately $3.7 million.

Under the terms of the Amended Agreements with Grünenthal, we received an upfront cash payment of $30.0 million in December 2013, and in the third quarter of 2014, we received a milestone payment of $5.0 million related to the MAA submission to EMA. We became entitled to receive an additional $15.0 million milestone payment upon the approval of the MAA in September 2015. Under the Amended License Agreement, we are eligible to receive approximately $194.5 million in additional milestone payments, based upon successful regulatory and product development efforts ($28.5 million) and net sales target achievements ($166.0 million). Grünenthal will also make tiered royalty, supply and trademark fee payments in the mid-teens up to the mid-twenties percent range, on net sales of Zalviso in the Territory.

Grünenthal will be responsible for all commercial activities for Zalviso, including obtaining and maintaining pharmaceutical product regulatory approval in the Territory. We will be responsible for obtaining and maintaining device regulatory approval in the Territory and manufacturing and supply of Zalviso to Grünenthal for commercial sales.

In association with the impending commercialization of Zalviso in the European Union, we underwent a Conformite Europeenne approval process for the Zalviso device, more commonly known as a CE Mark approval process. We received CE Mark approval in December 2014, which permits the commercial sale of the Zalviso device in the European Union. In connection with the CE Mark approval, we were also granted International Standards Organization, or ISO, 13485:2003 certification of our quality management system in November 2014. This is an internationally recognized quality standard for medical devices. Certification of our quality management system was issued by the British Standards Institution, or BSI, a Notified Body.

ISO 13485:2003 certification recognizes that consistent quality policies and procedures are in place for the development, design and manufacturing of medical devices. The certification indicates that we have successfully implemented a quality system that conforms to ISO 13485 standards for medical devices. Certification to this standard is one of the key regulatory requirements for a CE Mark in the European Union as well as to meet equivalent requirements in other international markets. The certification applies to the Redwood City, California location which designs, manufactures and distributes finished medical devices, and includes critical suppliers.

Critical Accounting Estimates

The accompanying discussion and analysis of our financial condition and results of operations are based upon our financial statements and the related disclosures, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts in our financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions 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. To the extent that there are material differences between these estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected. Our critical accounting policies and estimates are detailed in our Annual Report on Form 10-K for the year ended December 31, 2014. During the nine months ended September 30, 2015, we updated our concentration of risk policy to include our reliance on third parties for product manufacturing obligations under the Grünenthal Amended MSA, and our revenue recognition policy to include contract revenue, and added a policy for non-cash interest expense on liability related to sale of future royalties, as discussed below. There are no other significant changes to our significant accounting policies from those previously disclosed in our Annual Report on Form 10-K.

Concentration of Risk

We rely on a single third-party supplier for the supply of sufentanil, the active pharmaceutical ingredient in Zalviso, and various sole-source third-party contract manufacturer organizations to manufacture the Zalviso drug cartridge and device components, including the controller, the dispenser kit and the accessories.

Revenue Recognition - Contract Revenue

In May 2015, we entered into an award contract with the United States Army Medical Research and Materiel Command, or USAMRMC, to support the development of ARX-04. The contract provides for the reimbursement of qualified expenses for research and development activities as defined under the terms of the contract. Revenue under the contract is recognized when the related qualified research expenses are incurred. We are entitled to reimbursement of overhead costs associated with the study costs incurred under the DoD Contract. We estimate this overhead rate by utilizing forecasted expenditures. Final reimbursable overhead expenses are dependent on direct labor and direct reimbursable expenses throughout the life of the contract, so may increase or decrease based on actual expenses incurred.

Non-Cash Interest Expense on Liability Related to Sale of Future Royalties

In September 2015, we sold certain royalty and milestone payment rights from the sales of Zalviso in the European Union by our commercial partner, Grünenthal, pursuant to the Collaboration and License Agreement, dated as of December 16, 2013, as amended, to PDL for an upfront cash purchase price of $65.0 million. We continue to have significant continuing involvement in the Royalty Monetization primarily due to our obligation to act as the intermediary for the supply of Zalviso to Grünenthal. Under the relevant accounting guidance, because of our significant continuing involvement, the Royalty Monetization has been accounted for as a liability that will be amortized using the interest method over the life of the arrangement. In order to determine the amortization of the liability, we are required to estimate the total amount of future royalty and milestone payments to be received by PDL and payments we are required to make to PDL, up to a capped amount of $195.0 million, over the life of the arrangement. The sum of the capped amount of $195.0 million, less the $61.2 million of net proceeds we received will be recorded as interest expense over the life of the liability. Consequently, we impute interest on the unamortized portion of the liability and record interest expense using an estimated interest rate for an arms-length debt transaction. Our estimate of the interest rate under the arrangement is based on the amount of royalty and milestone payments expected to be received by PDL over the life of the arrangement. Our estimate of this total interest expense resulted in an effective annual interest rate of approximately 14%. We will periodically assess the expected royalty and milestone payments using a combination of historical results, internal projections and forecasts from external sources. To the extent such payments are greater or less than our initial estimates or the timing of such payments is materially different than our original estimates, we will prospectively adjust the amortization of the liability and the interest rate.

We will record non-cash royalty revenues and non-cash interest expense within our condensed consolidated statement of operations over the term of the PDL agreement.

Recently Issued Accounting Standards

In May 2014, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers*, or ASU 2014-09, to provide guidance on revenue recognition. ASU 2014-09 requires a company to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies will need to use more judgment and make more estimates than under today's guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. In August 2015, the FASB issued Update No. 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, or ASU-2015-14, that provided for the adoption of the new standard for fiscal years beginning after December 15, 2017. Accordingly, ASU 2014-09 is effective for AcelRx in the first quarter of 2018. Early adoption up to the first quarter of 2017 is permitted. Upon adoption, ASU 2014-09 can be applied retrospectively to all periods presented or only to the most current period presented with the cumulative effect of changes reflected in the opening balance of retained earnings in the most current period presented. We are currently evaluating the method of adoption and the impact of adopting ASU 2014-09 on our results of operations, cash flows and financial position.

In April 2015, the FASB issued Accounting Standards Update No. 2015-03, *Interest—Imputation of Interest*, or ASU 2015-03. ASU 2015-03 will more closely align the presentation of debt issuance costs under U.S. GAAP with the presentation under comparable IFRS standards by requiring that debt issuance costs be presented on the balance sheet as a direct deduction from the carrying amount of the related debt liability, similar to the presentation of debt discounts or premiums. ASU 2015-03 is effective for fiscal years beginning after December 15, 2015 and is required to be applied retrospectively to all prior periods presented. As permitted by ASU 2015-03, we elected to early adopt this guidance beginning with the first quarter of fiscal 2015, in order to simplify the presentation of our debt issuance costs. The resulting reclassifications of unamortized debt issuance costs from other assets to long-term debt, net of current portion on the condensed consolidated balance sheets as of September 30, 2015 and December 31, 2014, was $23,000 and $31,000, respectively. Refer to Note 5 "Long Term Debt" for additional information.

Results of Operations

Three and Nine Months Ended September 30, 2015 and 2014

Revenue

To date, we have not generated any commercial product revenue. In September 2015, the European Commission granted marketing approval for Zalviso in the European Union to our commercial partner, Grünenthal. We do not expect to receive any commercial sales revenue until after Grünenthal launches Zalviso in the European Union, which is expected in 2016.

Revenue for the three and nine months ended September 30, 2015, was $15.4 million and $17.5 million, respectively, the majority of which was recognized under our Amended License Agreement with Grünenthal, including revenue associated with the $15.0 million milestone payment for the MAA approval of Zalviso, which we expect to receive in the fourth quarter of 2015. In addition, in the three and nine months ended September 30, 2015, $1.6 million and $3.0 million, respectively, in revenue was recognized under the DoD Contract, while $0.7 million and $1.4 million, respectively, were recognized related to development work associated with our Amended License Agreement with Grünenthal. Revenue for the three and nine months ended September 30, 2014, was $4.8 million and $5.0 million, respectively, which was primarily due to the recognition of the milestone payment for the MAA submission under our Amended License Agreement with Grünenthal.

Contract Revenue

On May 11, 2015, we entered into an award contract supported by the USAMRMC within the DoD, in which the DoD agreed to provide up to $17.0 million to support the development of our product candidate ARX-04, a proprietary, non-invasive, single-use tablet in a disposable, pre-filled, single-dose applicator for the treatment of moderate-to-severe acute pain. The DoD Contract will support development of ARX-04 to perform Phase 3 clinical trials and manufacturing activities in order to submit an NDA to the FDA. Under the terms of the contract, the DoD will reimburse us for costs incurred for development, manufacturing and clinical costs outlined in the contract, including reimbursement for certain personnel and overhead expenses. The period of performance under the contract begins on May 11, 2015 and ends on November 10, 2016. The contract gives the DoD the option to extend the term of the contract and provide additional funding for the research. In addition, if ARX-04 is approved by the FDA, the DoD has the option to purchase a certain number of units of commercial product pursuant to the terms of the contract.

Collaboration Agreement Revenue

Under the terms of the Amended Agreements with Grünenthal, we received an upfront cash payment of $30.0 million, and a milestone payment of $5.0 million related to the MAA submission, which occurred in July 2014. We are entitled to an additional $15.0 million milestone payment due to the European Commission approval of the Zalviso MAA in September 2015, of which $13.2 million was recognized in the three months ended September 30, 2015. We are eligible to receive approximately $194.5 million in additional milestone payments, based upon successful regulatory and product development efforts ($28.5 million) and net sales target achievements ($166.0 million). PDL will receive 75% of the European royalties under the Amended License Agreement with Grünenthal, as well as 80% of the first four commercial milestones worth $35.6 million (or 80% of $44.5 million), subject to the capped amount of $195.0 million. Grünenthal will also make tiered royalty and supply and trademark fee payments in the mid-teens up to the mid-twenties percent range on net sales of Zalviso.

In September 2015, we sold certain royalty and milestone payment rights from the sales of Zalviso in the European Union by Grünenthal, pursuant to the Amended Agreements, to PDL for an upfront cash purchase price of $65.0 million. Due to our significant continuing involvement in the Royalty Monetization, primarily due to an obligation to act as the intermediary for the supply of Zalviso to Grünenthal, the Royalty Monetization has been accounted for as a liability that will be amortized using the interest method over the life of the arrangement. As the portion of the royalties and milestone payments sold to PDL are remitted by Grünenthal, the balance of the liability related to the Royalty Monetization will be effectively reduced over the life of the agreement. As such, we will record non-cash royalty revenues and non-cash interest expense within our condensed consolidated statements of comprehensive income (loss) over the term of the PDL agreement. There was no such non-cash royalty revenue in the three and nine months ended September 30, 2015. We do not expect to receive any non-cash royalty revenue, or other commercial sales revenue, until after Grünenthal launches Zalviso in the European Union.

Research and Development Expenses

Conducting research and development is central to our business model. The majority of our operating expenses to date have been for research and development activities related to Zalviso. Research and development expenses included the following:

- expenses incurred under agreements with contract research organizations and clinical trial sites;
- employee-related expenses, which include salaries, benefits and stock-based compensation;
- payments to third party pharmaceutical and engineering development contractors;
- payments to third party manufacturers;
- depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities and equipment, and equipment and laboratory and other supply costs; and
- costs for equipment and laboratory and other supplies.

Product candidates in late 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 late stage clinical trials. We will incur substantial future expenditures as we seek to continue development of Zalviso, including activities to address issues raised by the FDA during their regulatory review process, as well as activities associated with potential preparation for commercialization of Zalviso, should we receive approval from the FDA. In addition, we plan to continue to incur significant research and development expenses, including the expenses associated with the continued development of ARX-04 and the additional clinical trial for Zalviso. We do not plan to continue development of ARX-02 and ARX-03, unless additional funding or corporate partnership resources are available to support these programs.

We track external development expenses on a program-by-program basis. Our development resources are shared among all of our programs. Compensation and benefits, facilities, depreciation, stock-based compensation, and development support services are not allocated specifically to projects and are considered research and development overhead. Below is a summary of our research and development expenses during the three and nine months ended September 30, 2015 and 2014 (in thousands):

	Three Months Ended September 30,			Nine Months Ended September 30,		
Drug Indication/Description	**2015**	**2014**	**2015 vs. 2014 Increase/ (Decrease)**	**2015**	**2014**	**2015 vs. 2014 Increase/ (Decrease)**
			(In thousands, except percentages)			
ARX-04	$ 912	$ 523	74%	$ 5,069	$ 2,223	128%
Zalviso	1,291	2,241	(42)%	4,043	7,541	(46)%
Overhead	3,190	2,480	29%	9,897	7,475	32%
Total research and development expenses	$ 5,393	$ 5,244	3%	$ 19,009	$ 17,239	10%

Due to the inherently unpredictable nature of product development, development timelines and the probability of success, development costs can differ materially from expectations. While we are currently focused on the continued development of ARX-04 and advancing Zalviso, our future research and development expenses will depend on the clinical success of each product candidate as well as ongoing assessments of the commercial potential of our product candidates. In addition, we cannot predict which product candidates may be subject to future collaborations, when these arrangements will be secured, if at all, and to what degree these arrangements would affect our development plans and capital requirements.

Total research and development expenses for the three and nine months ended September 30, 2015 and 2014 were as follows (in thousands, except percentages):

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2015	**2014**	**Change**	**%**	**2015**	**2014**	**Change**	**%**
				(In thousands, except percentages)				
Research and development expenses	$ 5,393	$ 5,244	$ 149	3%	$ 19,009	$ 17,239	$ 1,770	10%

Research and development expenses during the three months ended September 30, 2015, as compared to the three months ended September 30, 2014, included an increase of $0.4 million in ARX-04 costs, primarily due to the initiation of the SAP302 study which began in the third quarter of 2015, and $0.7 million in research and development overhead expenses, compared to the three months ended September 30, 2014. These increases were partially offset by a $0.9 million reduction in Zalviso development program expenses during the three months ended September 30, 2015, as compared to the three months ended September 30, 2014.

The $1.8 million increase in research and development expenses during the nine months ended September 30, 2015, as compared to the nine months ended September 30, 2014, was primarily attributable to a $2.8 million increase related to the ARX-04 development program, a $1.2 million increase in manufacturing facilities expense, and an increase of $1.3 million in personnel-related expenses, including stock-based compensation, partially offset by a $3.5 million decrease related to the Zalviso development program.

General and Administrative Expenses

General and administrative expenses consisted primarily of salaries, benefits and stock-based compensation for personnel in administration, finance, marketing and business development activities. Other significant expenses included legal expenses related to litigation and patent protection of our intellectual property, allocated facility costs and professional fees for general legal, audit and consulting services. We expect general and administrative expenses to continue to decrease in the next quarter as a result of the cost reduction plan and then remain flat as we focus our efforts on further development and seeking marketing approval for Zalviso, and the continued development of ARX-04.

Total general and administrative expenses for the three and nine months ended September 30, 2015 and 2014 were as follows (in thousands, except percentages):

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2015	2014	Change	%	2015	2014	Change	%
	(In thousands, except percentages)							
General and administrative expenses	$ 2,930	$ 4,650	$ (1,720)	(37)%	$ 10,186	$ 13,622	$ (3,436)	(25)%

General and administrative expenses decreased over both comparative periods primarily due to a cost reduction plan implemented by our Board of Directors on March 19, 2015. See “Restructuring Costs” below for additional information.

The $1.7 million decrease in general and administrative expenses during the three months ended September 30, 2015, as compared to the three months ended September 30, 2014, was primarily due to decreased Zalviso-related market research and pre-commercialization costs of $1.5 million in the quarter ended September 30, 2015, compared to the quarter ended September 30, 2014.

The $3.4 million decrease in general and administrative expenses during the nine months ended September 30, 2015, as compared to the nine months ended September 30, 2014, was primarily due to $4.4 million decrease in market research and outside services, primarily related to market research activities for Zalviso, partially offset by a $0.4 million increase in stock-based compensation, a $0.3 million increase in legal fees and a $0.2 million increase in ARX-04 market research costs.

Restructuring Costs

In March 2015, we received correspondence from the FDA stating that in addition to the bench testing and two Human Factors studies we had performed in response to the issues identified in the CRL, a clinical trial is needed to assess the risk of inadvertent dispensing and overall risk of dispensing failures. On March 19, 2015, our Board of Directors, in connection with our efforts to reduce operating costs, conserve capital, focus the Company's financial and development resources on working with the FDA to seek marketing approval for Zalviso, and continuing development of ARX-04, implemented a cost reduction plan. The cost reduction plan reduced our workforce by 19 employees, approximately 36% of total headcount, in the first quarter of 2015.

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2015	2014	Change	%	2015	2014	Change	%
	(In thousands, except percentages)							
Restructuring costs	$ —	$ —	$ —	—%	$ 756	$ —	$ 756	—%

Restructuring cost in the nine months ended September 30, 2015 consists of employee termination benefit costs of $0.8 million. The restructuring liability has been fully disbursed as of September 30, 2015.

Other (Expense) Income

Total other (expense) income for the three and nine months ended September 30, 2015 and 2014 were as follows (in thousands, except percentages):

	Three Months Ended September 30,		Nine Months Ended September 30,	
(In thousands)	2015	2014	2015	2014
Interest expense	$ (713)	$ (816)	$ (2,296)	$ (1,818)
Interest income and other income (expense), net	(269)	6,556	1,915	8,153
Non-cash interest expense on liability related to sale of future royalties	(282)	—	(282)	—
Total other (expense) income	$ (1,264)	$ 5,740	$ (663)	$ 6,335

Interest expense consisted primarily of interest accrued or paid on our debt obligation agreements and amortization of debt discounts. Interest expense for both periods pertains to interest on our Loan and Security Agreement with Hercules. In December 2013, we entered into the Amended Loan Agreement with Hercules, which amends and restates the Loan and Security Agreement. The overall debt facility was increased to $40.0 million, $20.7 million of which was outstanding as of September 30, 2015, and the maturity was extended to October 1, 2017. On June 16, 2014, we borrowed the second tranche of $10.0 million. As a result of the lower principal balance in the three months ended September 30, 2015 as compared to the three months ended September 30, 2014, the amount of interest expense incurred decreased; however, due to the higher average principal balance in the nine months ended September 30, 2015 as compared to the nine months ended September 30, 2014, the amount of interest expense incurred increased.

On September 18, 2015, concurrently with the closing of the Royalty Monetization, the Company entered into a Consent and Amendment No. 2, or Amendment No. 2, to the Amended Loan Agreement. Amendment No. 2 includes an interest only period from October 1, 2015 through March 31, 2016, with the potential for further extension to September 30, 2016 upon satisfaction of certain conditions. These conditions were satisfied in the third quarter of 2015 and the interest only period under the Amended Loan Agreement is October 1, 2015 through September 30, 2016.

Interest income and other income (expense), net, during the three and nine months ended September 30, 2015 and 2014, consisted primarily of the change in the fair value of our warrants, or PIPE warrants, issued in connection with our private placement of our common stock, which was completed in June 2012. The decrease in interest income and other income (expense), net, during the three and nine months ended September 30, 2015 as compared to the three and nine months ended September 30, 2014, was primarily attributable to fewer PIPE warrants outstanding at September 30, 2015, as compared to September 30, 2014 and a larger decrease in our stock price in the first nine months of 2014 than in the first nine months of 2015, which is a primary driver in the Black-Scholes valuation model used to estimate the fair value of the PIPE warrants. Interest income and other income (expense), net, during the three and nine months ended September 30, 2015 also included $0.5 million in impairment charges related to leasehold improvements in our corporate offices.

The increase in non-cash interest expense on liability related to the Royalty Monetization for the three and nine months ended September 30, 2015 compared to the same period 2014 is attributable to the royalty sale transaction that we completed in September 2015. As described above, the Royalty Monetization has been recorded as debt under the applicable accounting guidance. We impute interest on the liability and record interest expense based on the amount and timing of royalty and milestone payments expected to be received by PDL over the life of the arrangement. There are a number of factors that could materially affect the estimated interest rate and we will assess this estimate on a periodic basis. As a result, future interest rates could differ significantly and any such change in interest rate will be adjusted prospectively.

Provision for Income Taxes

The Royalty Monetization results in a taxable gain of more than $60.0 million, the majority of which is expected to be offset with net operating loss carryforwards; however, AcelRx is expected to be subject to U.S. federal alternative minimum taxes in 2015, as reflected in our provision for income taxes in the third quarter of 2015.

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2015	2014	Change	%	2015	2014	Change	%
	(In thousands, except percentages)							
Provision for income taxes	$ 772	$ —	$ 772	—%	$ 772	$ —	$ 772	—%

Liquidity and Capital Resources

Liquidity

We have incurred losses and generated negative cash flows from operations since inception. Although we expect to generate positive cash flows in 2015 primarily due to the Royalty Monetization, we expect to continue to incur significant losses in 2015 and may incur significant losses and negative cash flows for the foreseeable future. We have funded our operations primarily through issuance of equity securities, borrowings, payments from our commercial partner, Grünenthal, monetization of certain future royalties and commercial sales milestones from the sales of Zalviso by Grünenthal, and our contracts with the DoD.

As of September 30, 2015, we had cash, cash equivalents and investments totaling $104.3 million compared to $75.4 million as of December 31, 2014. The increase was primarily attributable to the $61.2 million in net proceeds in connection with the Royalty Monetization, partially offset by cash required to fund our continuing operations, as we continue our research and development activities. We anticipate that our existing capital resources will permit us to meet our capital and operational requirements through at least the first half of 2017. While we believe we have sufficient capital to meet our operational requirements through at least the first half of 2017, our expectations may change depending on a number of factors. For example, based on their review of the protocol we have submitted for the requested clinical trial for Zalviso, the FDA may require a scope or design change that is beyond what our current and estimated future capital resources can support. We believe that together with the support from the DoD Contract, we have sufficient resources to complete the Phase 3 development program for ARX-04 through submission of the NDA to the FDA. However, our existing capital resources will not be sufficient to fund our operations until such time as we may be able to generate sufficient revenues to sustain our operations.

On September 18, 2015, we sold a portion of the expected royalty stream and commercial milestone payments from the sales of Zalviso in the EU by Grünenthal to PDL. As mentioned above, we received net proceeds of $61.2 million in the Royalty Monetization. PDL will receive 75% of the European royalties under the Amended License Agreement with Grünenthal, as well as 80% of the first four commercial milestones worth $35.6 million (or 80% of $44.5 million), subject to the capped amount of $195.0 million. We are entitled to receive all remaining amounts under the Amended License Agreement which include 25% of the European royalties, 20% of the first four commercial milestones, 100% of the remaining commercial milestones and all development milestones of $43.5 million, including the $15.0 million payment for the approval of the Zalviso MAA, which the European Commission approved in September 2015.

On December 16, 2013, AcelRx and Grünenthal entered into the License Agreement, and related Manufacture and Supply Agreement, or the MSA, and together with the License Agreement, the Agreements. The License Agreement grants Grünenthal rights to commercialize Zalviso, or the Product, in the Territory for human use in pain treatment within or dispensed by hospitals, hospices, nursing homes and other medically-supervised settings. We retain rights with respect to the Product in countries outside the Territory, including the United States, Asia and Latin America. On July 22, 2015, the Company entered into amendments to the License Agreement, or the License Amendment, and together with the License Agreement, the Amended License Agreement, and the MSA, or the MSA Amendment, and together with the MSA, the Amended MSA, between the Company and Grünenthal, each effective as of July 17, 2015, and together, the Amended Agreements.

Under the terms of the Amended Agreements, we received an upfront cash payment of $30.0 million, and a milestone payment of $5.0 million related to the MAA submission in the third quarter of 2014. We became entitled to receive an additional $15.0 million milestone payment upon the approval of the MAA, in September 2015. In addition, under the terms of the Amended Agreements, we are eligible to receive approximately $194.5 million in additional milestone payments, based upon successful regulatory and product development efforts ($28.5 million) and net sales target achievements ($166.0 million). Grünenthal will also make tiered royalty, supply and trademark fee payments in the mid-teens up to the mid-twenties percent range, on net sales of Zalviso in the Territory. As mentioned above, under the Royalty Monetization we sold 80% of the first four commercial milestone payments and 75% of the royalty payments expected to be received from Grünenthal, up to a capped amount of $195.0 million.

On December 16, 2013, AcelRx entered into an Amended and Restated Loan and Security Agreement with Hercules Technology II, L.P. and Hercules Technology Growth Capital, Inc., together, the Lenders, or the Amended Loan Agreement, under which AcelRx may borrow up to $40.0 million in three tranches. The loans are represented by secured convertible term promissory notes, collectively, the Notes. The Amended Loan Agreement amends and restates the Loan and Security Agreement between AcelRx and the Lenders dated as of June 29, 2011. We borrowed the first tranche of $15.0 million upon closing of the transaction on December 16, 2013, and the second tranche of $10.0 million on June 16, 2014. We used approximately $8.6 million of the proceeds from the first tranche to repay our obligations under the Loan and Security Agreement with the Lenders. We recorded the new debt at an estimated fair value of $24.9 million as of December 31, 2014.

On September 24, 2014, we entered into Amendment No. 1 to the Amended Loan Agreement with Hercules. Amendment No. 1 extended the time period under which we could draw down the third tranche, of up to $15.0 million, from March 15, 2015 to August 1, 2015, subject to AcelRx obtaining approval for Zalviso from the FDA. We did not receive FDA approval of Zalviso by August 1, 2015 and as such, did not have access to the third tranche.

On September 18, 2015, concurrently with the closing of the Royalty Monetization, we entered into a Consent and Amendment No. 2, or Amendment No. 2, to the Amended Loan Agreement with the Lenders. Amendment No. 2 includes an interest only period from October 1, 2015 through March 31, 2016, with the potential for further extension to September 30, 2016 upon satisfaction of certain conditions. These conditions were satisfied in the third quarter of 2015 and the interest only period under the Amended Loan Agreement is October 1, 2015 through September 30, 2016. Loans under the Amended Loan Agreement mature on October 31, 2017. As of September 30, 2015, the outstanding principal owed to Hercules was $20.7 million.

Our cash and investment balances are held in a variety of interest bearing instruments, including obligations of U.S. government agencies, money market funds and time deposits. Cash in excess of immediate requirements is invested with a view toward capital preservation and liquidity.

Cash Flows

The following is a summary of our cash flows for the periods indicated and has been derived from our condensed consolidated financial statements which are included elsewhere in this Form 10-Q (in thousands):

	Nine Months Ended September 30,	
	2015	**2014**
Net cash used in operating activities	$ (26,948)	$ (25,535)
Net cash provided by (used in) investing activities	4,824	(5,011)
Net cash provided by financing activities	57,128	12,386

Cash Flows from Operating Activities

The primary use of cash for our operating activities during these periods was to fund the development of our product candidates, including commercial readiness activities for our product candidate, Zalviso. Our cash used for operating activities also reflected changes in our working capital, net of adjustments for non-cash charges, such as depreciation and amortization of our fixed assets, stock-based compensation, non-cash interest expense related to the sale of future royalties, interest expense related to our debt financings and the revaluation of our PIPE warrant liability and the contingent put option liability.

Cash used in operating activities of $26.9 million during the nine months ended September 30, 2015, reflected a net loss of $13.9 million, partially offset by aggregate non-cash charges of $4.5 million, and a net change of $17.6 million in our net operating assets and liabilities. Non-cash charges included $3.8 million for stock-based compensation, and $1.5 million for depreciation and amortization of our fixed assets, partially offset by a $2.4 million for the change in fair value of our PIPE warrant liability and contingent put liability and a $1.3 million decrease in accrued liabilities, primarily due to payment of compensation-related expenses. The net change in our operating assets and liabilities included a $17.4 million increase in accounts receivable, primarily due to the $15.0 million milestone receivable from Grünenthal.

Cash used in operating activities of $25.5 million during the nine months ended September 30, 2014, reflected a net loss of $19.5 million, partially offset by aggregate non-cash charges of $4.6 million, and a net change of $1.4 million in our net operating assets and liabilities. Non-cash charges included $3.1 million for stock-based compensation, partially offset by $8.8 million for the change in fair value of our PIPE warrant liability and contingent put liability.

Cash Flows from Investing Activities

Our investing activities have consisted primarily of our capital expenditures and purchases and sales and maturities of our available-for-sale investments.

During the nine months ended September 30, 2015, cash provided by investing activities of $4.8 million was primarily as a result of $7.3 million for purchases of investments and $1.1 million for purchases of property and equipment, partially offset by $13.2 million in proceeds from maturity of investments.

During the nine months ended September 30, 2014, cash used in investing activities of $5.0 million was primarily as a result of $14.9 million for purchases of investments and $4.7 million for purchases of property and equipment, partially offset by $14.6 million in proceeds from maturity of investments.

Cash Flows from Financing Activities

Cash flows from financing activities primarily reflect proceeds from the sale of future royalties, proceeds from the sale of our securities, proceeds from our debt financings and payments made on such debt financings. As of September 30, 2015, the total liability related to the sale of future royalties was $61.5 million and the balance of the outstanding debt with Hercules was $20.7 million.

During the nine months ended September 30, 2015, cash provided by financing activities of $57.1 million was primarily due $61.2 million in net proceeds from the Royalty Monetization, partially offset by $4.5 million in payments on the Amended Loan Agreement with Hercules.

During the nine months ended September 30, 2014, cash provided by financing activities of $12.4 million was primarily due to the drawdown of the second tranche of the Hercules debt of $10.0 million.

Operating Capital and Capital Expenditure Requirements

We expect our rate of cash usage to increase in the future, in particular to support our product development activities, including continued development of Zalviso, ARX-04 and the potential commercialization of our product candidates, if approved outside of the Grünenthal Territory. Our future cash needs anticipate the receipt of the $15.0 million milestone from Grünenthal for approval of the MAA and the receipt of reimbursement for qualified expenses under the DoD Contract. We anticipate that our existing capital resources will permit us to meet our capital and operational requirements through at least the first half of 2017. Our current operating plan includes the continued development of ARX-04, specifically the filing of the NDA in 2016. These assumptions may change as a result of many factors. For example, the FDA is reviewing the protocol for the additional clinical trial for Zalviso. Pending the outcome of their review of the protocol, we may need to modify the trial design or complete additional work to resubmit the NDA for Zalviso. We will continue to evaluate the work necessary to gain approval of Zalviso in the U.S. The final pathway forward for Zalviso could have a material impact to our operating spend. Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially. Additional capital may not be available on terms acceptable to us, or at all. If adequate funds are not available, or if the terms underlying potential funding sources are unfavorable, our business and our ability to develop our product candidates would be harmed.

Our future capital requirements may vary materially from our expectations based on numerous forward looking factors, including but not limited to the following:

- the outcome, timing and cost of regulatory approvals;
- expenditures related to the activities required in support of our resubmission of the Zalviso NDA, including an additional clinical trial for Zalviso, as requested by the FDA;
- expenditures related to our commercialization preparation of Zalviso;
- future manufacturing, selling and marketing costs related to Zalviso, including our contractual obligations to Grünenthal;
- the initiation, progress, timing and completion of clinical trials for our product candidates, including ARX-04;
- changes in the focus and direction of our business strategy and/or research and development programs;

- milestone and royalty revenue we receive under our collaborative development and commercialization arrangements;
- delays that may be caused by changing regulatory requirements;
- the number of product candidates that we pursue;
- the initiation, progress, timing and completion of clinical trials for our product candidates and potential product candidates;
- the costs involved in filing and prosecuting patent applications and enforcing and defending patent claims;
- the timing and terms of future in-licensing and out-licensing transactions;
- the cost and timing of establishing sales, marketing, manufacturing and distribution capabilities;
- the cost of procuring clinical and commercial supplies of our product candidates;
- the extent to which we acquire or invest in businesses, products or technologies; and
- the expenses associated with the pending securities lawsuit, as well as any other litigation.

We will need substantial funds to:

- commercialize any products we market, including ARX-04 and Zalviso, if approved outside of the Grünenthal Territory;
- manufacture and market our product candidates;
- conduct preclinical and clinical testing of our product candidates; and
- conduct research and development programs.

Our existing capital resources may not be sufficient to fund our operations until such time as we may be able to generate sufficient revenues to sustain our operations. To the extent that our capital resources are insufficient to meet our future capital requirements, we will have to raise additional funds through the sale of our equity securities, monetization of current and future assets, issuance of debt or debt-like securities or from development and licensing arrangements to continue our development programs. We may be unable to raise such additional capital on favorable terms, or at all. If we raise additional capital by selling our equity or convertible debt securities, the issuance of such securities could result in dilution of our shareholders' equity positions. If adequate funds are not available we may have to:

- significantly curtail or put on hold commercialization or development efforts of our product candidates or other operations;
- obtain funds through entering into collaboration agreements on unattractive terms; and/or
- delay, postpone or terminate planned clinical trials.

Contractual Obligations

Purchase Obligations

Purchase obligations consist of agreements to purchase goods or services that are enforceable and legally binding on us and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. These include obligations for product manufacturing and research and development.

We have purchase commitments for commercial inventory for Zalviso totaling $2.8 million at September 30, 2015 to supply raw materials in the fourth quarter of 2015 of approximately $0.7 million, and finished goods in the first quarter of 2016 of approximately $2.1 million.

During the nine months ended September 30, 2015, there were no additional material changes to our contractual obligations, other than the fulfillment of existing obligations in the ordinary course of business, described under Management's Discussion and Analysis of Financial Condition and Results of Operations contained in Part II, Item 7 of our Annual Report on Form 10-K for our fiscal year ended December 31, 2014.

Off-Balance Sheet Arrangements

Through September 30, 2015, we have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Our cash, cash equivalents and short-term investments as of September 30, 2015, consisted primarily of money market funds and U.S. government agency securities. We do not have any auction rate securities on our balance sheet, as they are not permitted by our investment policy. Our cash is invested in accordance with an investment policy approved by our board of directors which specifies the categories, allocations, and ratings of securities we may consider for investment. We do not believe our cash, cash equivalents and short-term investments have significant risk of default or illiquidity.

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because the majority of our investments are in short-term marketable debt securities. The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive from our investments without significantly increasing risk. In an attempt to limit interest rate risk, we follow guidelines to limit the average and longest single maturity dates, place our investments with high quality issuers and follow internally developed guidelines to limit the amount of credit exposure to any one issuer. Some of the securities that we invest in may be subject to market risk. This means that a change in prevailing interest rates may cause the value of the investment to fluctuate. For example, if we purchase a security that was issued with a fixed interest rate and the prevailing interest rate later rises, the value of our investment may decline. If a 10 percent change in interest rates were to have occurred on September 30, 2015, this change would not have had a material effect on the fair value of our investment portfolio as of that date. In general, money market funds are not subject to market risk because the interest paid on such funds fluctuates with the prevailing interest rate.

In addition, domestic and international equity markets have experienced and may continue to experience heightened volatility and turmoil based on domestic and international economic conditions and concerns. In the event these economic conditions and concerns continue and the markets continue to remain volatile, our results of operations could be adversely affected by those factors in many ways, including making it more difficult for us to raise funds if necessary and our stock price may further decline. In addition, we maintain significant amounts of cash and cash equivalents that are not federally insured. If economic instability continues, we cannot provide assurance that we will not experience losses on these investments.

Item 4. Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the rules and regulations thereunder, is recorded, processed, summarized and reported within the time periods specified in the U.S. Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Evaluation of disclosure controls and procedures. As required by Rule 13a-15(b) under the Exchange Act, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in internal control over financial reporting. There have been no changes in our internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

On October 1, 2014, a securities class action complaint was filed in the U.S. District Court for the Northern District of California against AcelRx and certain of our current and former officers. On April 17, 2015, lead plaintiff filed an amended complaint. The amended complaint alleges that between September 30, 2013 and July 25, 2014, AcelRx and certain of our current and former officers violated Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 in connection with statements related to our drug candidate, Zalviso. The amended complaint seeks unspecified damages, interest, attorneys' fees, and other costs. In response, the Company filed a Motion to Dismiss on June 1, 2015. Plaintiffs' opposition was filed July 30, 2015 and the Company's reply brief was subsequently filed September 14, 2015. It is anticipated that the court will rule on the motion to dismiss based on the filings. We believe that we have meritorious defenses and intend to defend against this lawsuit vigorously.

This lawsuit and any future related lawsuits are subject to inherent uncertainties, and the actual defense and disposition costs will depend upon many unknown factors. The outcome of such lawsuits is necessarily uncertain. Securities-related class action litigation often is expensive and diverts management's attention and our financial resources, which could adversely affect our business. Further, any negative outcome from such lawsuit could result in payments of monetary damages, or adversely affect our products, and accordingly our business, financial condition, or results of operations could be materially and adversely affected.

There can be no assurance that a favorable final outcome will be obtained in this case or any subsequent related case. Defending any lawsuit is costly and can impose a significant burden on management and employees. Any litigation to which we are a party may result in an onerous or unfavorable judgment that may not be reversed upon appeal or in payments of monetary damages not covered by insurance, or we may decide to settle lawsuits on unfavorable terms, which could adversely affect our business, financial conditions, or results of operations.

From time to time we may be involved in additional legal proceedings arising in the ordinary course of business.

Item 1A. Risk Factors

This Quarterly Report on Form 10-Q contains forward-looking information based on our current expectations. Because our actual results may differ materially from any forward-looking statements made by or on behalf of us, this section includes a discussion of important factors that could affect our actual future results, including, but not limited to, our revenues, expenses, net loss and loss per share. You should carefully consider these risk factors, together with all of the other information included in this Quarterly Report on Form 10-Q as well as our other publicly available filings with the U.S. Securities and Exchange Commission, or SEC.

We have marked with an asterisk (*) those risks described below that reflect substantive changes from, or additions to, the risks described in our Annual Report on Form 10-K for the year ended December 31, 2014.

Risks Related to Clinical Development and Regulatory Approval

We depend substantially on the success of ARX-04, which may not receive regulatory approval in the United States.*

Since our inception in 2005, we have focused primarily on development of our product candidate, Zalviso; however, given the delay in the Zalviso approval in the United States, we believe the importance of ARX-04 to our future success has increased ARX-04 is a non-invasive investigational product candidate consisting of 30 mcg sufentanil tablets delivered sublingually via a disposable, pre-filled, single-dose applicator, or SDA.

In June 2014, we completed a pharmacokinetic study in support of the ARX-04 development program. In this study of healthy volunteers, it was shown that two sublingual administrations of a Zalviso sufentanil sublingual tablet, 15 mcg, dosed 20 minutes apart were equivalent to one sublingual administration of an ARX-04 sufentanil sublingual tablet, 30 mcg. Based on the results of this study, we have proposed the inclusion of approximately 300 patients from the Zalviso clinical program in the ARX-04 safety database to the FDA and we have designed the two Phase 3 ARX-04 trials, SAP301 and SAP302, accordingly. The ARX-04 safety database required by the FDA is 500 patients. We have confirmation from the FDA that some of the Zalviso patients can be included in the overall ARX-04 safety database; however, further discussion is ongoing to determine the exact number of such patients that can be used towards achieving the 500 patient minimum total safety exposure number required for ARX-04. Based on the outcome of these discussions, we may need to increase enrollment in or otherwise modify our ongoing Phase 3 clinical program to meet the FDA's requested exposure requirements to ARX-04, which could delay completion of the Phase 3 clinical program and increase our clinical trial expenses.

We have scheduled a pre-NDA meeting with the FDA in December 2015. Pending the outcome of this meeting, we believe we will have met the requirements to file an NDA for ARX-04 in 2016. However, while we have announced positive top-line results from SAP301, SAP302 may not achieve positive results, or may not be completed by early 2016 as anticipated. Even if we believe the results from SAP301 and SAP302 support an NDA submission for ARX-04, the FDA may not agree, or may interpret the study results differently, which would delay the timing of our commercialization of ARX-04 and adversely affect our business operations. If ARX-04 is not approved for sale in the United States, it could have a significant impact on our ability to generate cash flows from product sales or to enter into a collaboration agreement. If we are not able to receive approval to commercialize ARX-04 in the United States, we would be required to find alternative sources of capital to continue operations. If ARX-04 is not approved for sale in the United States, and we are unsuccessful in finding alternative sources of capital, it will be difficult for us to continue under our current operating plan.

Any disagreement with the FDA as to the results from SAP301 and SAP302, and therefore any additional requirements imposed by the FDA prior to our ability to submit an NDA as well as any delay in approval by the FDA of the ARX-04 NDA, if and when it is submitted, may negatively impact our stock price and harm our business operations. Any delay in obtaining, or inability to obtain, regulatory approval would prevent us from commercializing ARX-04 in the United States, generating revenues and potentially achieving profitability. If any of these events occur, we may be forced to delay or abandon our development efforts for ARX-04, which would have a material adverse effect on our business and could potentially cause us to cease operations.

We depend substantially on the success of Zalviso, which may not receive regulatory approval in the United States.*

Since our inception in 2005, we have focused primarily on development of our product candidate, Zalviso™. Zalviso consists of sufentanil sublingual tablets, 15 mcg, delivered by the Zalviso System, a needle-free, handheld, patient-administered, pain management system, or together, Zalviso. The success of our business depends primarily upon our ability to develop, receive regulatory approval in the United States for, and commercialize Zalviso for the management of moderate-to-severe acute pain in adult patients in the hospital setting. We have not marketed, distributed or sold any products to date anywhere in the world.

Our Phase 3 program for Zalviso consisted of three Phase 3 clinical trials. We reported positive top-line data from each of these trials and submitted a New Drug Application, or NDA, for Zalviso to the FDA in September 2013, which the FDA then accepted for filing in December 2013. On July 25, 2014, the FDA issued a Complete Response Letter, or CRL, for our NDA for Zalviso. The CRL contains requests for additional information on the Zalviso System to ensure proper use of the device. The requests include submission of data demonstrating a reduction in the incidence of optical system errors, changes to address inadvertent dosing, among other items, and submission of additional data to support the shelf life of the product. In the third quarter of 2014, we held a Type A meeting with the FDA to discuss the Zalviso CRL. During the meeting we discussed the resubmission of the Zalviso NDA and the steps necessary for the resubmission. In advance of resubmitting our Zalviso NDA, we agreed with the FDA to submit protocols for the bench testing and Human Factors, or HF, studies for their review and comment. In addition, the FDA requested in the minutes of the meeting, that we provide a risk assessment that analyzes the risks associated with inadvertent dosing and the rationale that bench testing and HF studies are sufficient to address the specific items included in the CRL. We submitted the protocols and this rationale in the fourth quarter of 2014. In January 2015, we received feedback from the FDA on the protocol and planned analysis of the results of the bench test. Based on the FDA feedback, no modifications to the conduct of the bench test were necessary; however, in response to the FDA's request, we refined the planned analysis of the bench test results. In February 2015, we received feedback from the FDA on the HF protocols. In this feedback, the FDA confirmed that the HF studies as proposed were acceptable to evaluate the design changes related to inadvertent dispensing of tablets. In March 2015, we received additional correspondence from the FDA stating that in addition to the bench testing and two HF studies we had performed in response to the issues identified in the CRL, a clinical trial is needed to assess the risk of inadvertent dispensing and overall risk of dispensing failures. On April 21, 2015, we submitted a request to the Division of Anesthesia, Analgesia, and Addiction Products, or the Division, of the FDA for a Type B meeting. On May 1, 2015, the Division notified us that the request for a meeting was denied and restated the Division's view that a clinical study is required. Subsequently, we were granted a Type C meeting (previously identified as a General Advice meeting) with the FDA, which took place in early September 2015, to discuss their request for an additional clinical trial and our planned response to the CRL. We recently received formal minutes of this meeting. In the minutes, the FDA provided some additional details about the type of clinical data they would like us to provide, as a complement to the other data we already have provided, to assess the overall performance of Zalviso. We have submitted a protocol to the FDA for a clinical study in post-operative patients designed to evaluate the effectiveness of changes made to enhance product performance. We expect to be ready to initiate the study in the first quarter of 2016, but likely will await comments on the protocol from the FDA, prior to study initiation. There is no guarantee that we will receive the FDA's comments on the protocol before or during the first quarter of 2016. Further, we may be unable to come to an agreement with the FDA on the design or objectives of the requested clinical trial. As a result, the initiation of the trial might be delayed. Alternatively, AcelRx might commence the trial before reaching an agreement with the FDA on the protocol. Even if we are able to agree on the protocol for an additional Zalviso clinical trial with the FDA, there is no guarantee that the trial results will address the issues raised by the FDA. Further, there is no guarantee that the additional work we perform related to Zalviso, including an additional human clinical trial, will be supportive of, or guarantee, an NDA resubmission, or result in our successfully obtaining FDA approval of Zalviso in a timely fashion, if at all. For example, the trial might not meet its endpoints or the FDA could still have concerns regarding optical system errors, inadvertent dosing, or other issues. At any future point in time, the FDA could require us to complete further clinical, Human Factors, pharmaceutical, reprocessing or other studies, which could delay or preclude any NDA submission or approval of the NDA and could require us to obtain significant additional funding. There is no guarantee such funding would be available to us on favorable terms, if at all.

Our proposed trade name of Zalviso has been approved by the FDA, which must approve all drug trade names to avoid medication errors and misbranding. However, the FDA may withdraw this approval in which case any brand recognition or goodwill that we establish with the name Zalviso prior to commercialization may be worthless.

Any delay in approval by the FDA of the Zalviso NDA, if, and when, it is resubmitted, may negatively impact our stock price and harm our business operations. Any delay in obtaining, or inability to obtain, regulatory approval would prevent us from commercializing Zalviso in the United States, generating revenues and potentially achieving profitability. If any of these events occur, we may be forced to delay or abandon our development efforts for Zalviso, which would have a material adverse effect on our business and could potentially cause us to cease operations.

We may decide to enter into the dispute resolution process for Zalviso through the FDA prescribed pathway.*

As noted above, on May 1, 2015, the Division notified us that the request for a meeting was denied and restated the Division's view that a clinical study is required. Subsequently, we were granted a Type C meeting with the FDA, which took place in early September 2015, to discuss the FDA's request for an additional clinical trial and our planned response to the CRL. We have submitted a protocol for the requested trial to the FDA for their review. Depending on the nature and extent of the comments on the protocol, we choose to pursue a dispute resolution process to gain approval for Zalviso. Under FDA guidance, the formal dispute resolution process is a request for review above the FDA division level. There is no guarantee that the dispute resolution process, nor any additional work we perform related to Zalviso, including an additional human clinical trial, would be supportive of, or guarantee, an NDA resubmission, or result in our successfully obtaining FDA approval of Zalviso in a timely fashion, if at all. At any future point in time, the FDA could require us to complete further clinical, Human Factors, pharmaceutical, reprocessing or other studies, which could delay or preclude any approval of the NDA and could require us to obtain significant additional funding. There is no guarantee such funding would be available to us on favorable terms, if at all.

Positive clinical results obtained to date for our product candidates may be disputed in FDA review, do not guarantee regulatory approval and may not be obtained from future clinical trials.*

We have reported positive top-line data from our first Phase 3 clinical trial for ARX-04, or SAP301, each of our three Zalviso Phase 3 clinical trials, in addition to all of our Phase 2 clinical trials for ARX-04 and Zalviso. However, even if we believe that the data from clinical trials is positive, the FDA has and in the future could determine that the data from our trials was negative or inconclusive or could reach a different conclusion than we did on that same data. Negative or inconclusive results of a clinical trial or difference of opinion could cause the FDA to require us to repeat the trial or conduct additional clinical trials prior to obtaining approval for commercialization, and there is no guarantee that additional trials would achieve positive results or that the FDA will agree with our interpretation of the results. Any such determination by the FDA would delay the timing of our commercialization plan for ARX-04 and Zalviso, or further development of our other product candidates, and adversely affect our business operations. For example, although we had achieved the primary endpoints in each of our three Phase 3 clinical trials for Zalviso, which were included in our NDA filed in 2013, in March 2015, we received correspondence from the FDA stating that in addition to the bench testing and two Human Factors studies we had performed in response to the issues identified in the CRL, a clinical trial is needed to assess the risk of inadvertent dispensing and overall risk of dispensing failures.

Delays in clinical trials are common and have many causes, and any delay could result in increased costs to us and jeopardize or delay our ability to obtain regulatory approval and commence product sales.*

We have experienced and may in the future experience delays in clinical trials of our product candidates. While we have completed one Phase 3 clinical trial for ARX-04, three Phase 3 clinical trials for Zalviso, and several Phase 2 clinical trials both for ARX-04 and Zalviso, current and potential future clinical trials may not begin on time, have an effective design, enroll a sufficient number of patients or be completed on schedule, if at all. For example, in June 2014, we completed a pharmacokinetic study in support of the ARX-04 development program. In this study of healthy volunteers, it was shown that two sublingual administrations of a Zalviso sufentanil sublingual tablet, 15 mcg, dosed 20 minutes apart were equivalent to one sublingual administration of an ARX-04 sufentanil sublingual tablet, 30 mcg. Based on the results of this study, we have proposed the inclusion of approximately 300 patients from the Zalviso clinical program in the ARX-04 safety database to the FDA and we have designed the two Phase 3 ARX-04 trials accordingly. The ARX-04 safety database required by the FDA is 500 patients. We have confirmation from the FDA that some of the Zalviso patients can be included in the overall ARX-04 safety database; however, further discussion is ongoing to determine the exact number of such patients that can be used towards achieving the 500 patient minimum total safety exposure number required for ARX-04. Based on the outcome of these discussions, we may need to increase enrollment in our planned Phase 3 clinical program to meet the FDA's requested exposure requirements to ARX-04, which could delay completion of the Phase 3 clinical program and increase our clinical trial expenses.

Our clinical trials for any of our product candidates could be delayed for a variety of reasons, including:

- inability to raise funding necessary to initiate or continue a trial;

- delays in obtaining regulatory approval to commence a trial;
- delays in reaching agreement with the FDA on final trial design;
- imposition of a clinical hold following an inspection of our clinical trial operations or trial sites by the FDA or other regulatory authorities;
- delays in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites;
- delays in obtaining required institutional review board approval at each site;
- delays in recruiting suitable patients to participate in a trial;
- delays in the testing, validation, manufacturing and delivery of the device components of our product candidates;
- delays in having patients complete participation in a trial or return for post-treatment follow-up;
- clinical sites dropping out of a trial to the detriment of enrollment or being delayed in entering data to allow for clinical trial database closure;
- time required to add new clinical sites; or
- delays by our contract manufacturers to produce and deliver sufficient supply of clinical trial materials.

If any future clinical trials are delayed for any of the above reasons, our development costs may increase, our approval process could be delayed and our ability to commercialize and commence sales of our product candidates could be materially harmed, which could have a material adverse effect on our business.

We have not yet responded to the Zalviso Complete Response Letter nor resubmitted the Zalviso NDA. Activities that we undertake to address issues raised in the CRL may be deemed insufficient by the FDA.*

We completed bench testing and additional Human Factors studies that we believed addressed certain items contained in the CRL. However, before the results from these studies were submitted as a part of the proposed NDA resubmission, the FDA, in March 2015, notified us of the need for a clinical trial prior to the resubmission of the Zalviso NDA. In early September 2015, we had a Type C meeting with the FDA to discuss the FDA's request for an additional clinical trial and our planned response to the CRL. We have submitted a protocol to the FDA for a clinical study in post-operative patients designed to evaluate the effectiveness of changes made to enhance product performance. We expect to be ready to initiate the study in the first quarter of 2016, but likely will await comments on the protocol from the FDA prior to study initiation. There is no guarantee that we will receive the FDA's comments on the protocol before or during the first quarter of 2016. Further, we may be unable to come to an agreement with the FDA on the design or objectives of the requested clinical trial. As a result, the initiation of the trial might be delayed. Alternatively, AcelRx might commence the trial before reaching an agreement with the FDA on the protocol. Even if we are able to agree on the protocol for an additional Zalviso clinical trial with the FDA, there is no guarantee that the trial results will address the issues raised by the FDA. Any delay in obtaining, or inability to obtain, regulatory approval would prevent us from commercializing Zalviso in the United States, generating revenues and achieving profitability. If any of these events occur, we may be forced to delay or abandon our development and commercialization efforts for Zalviso in the United States, which would have a material adverse effect on our business and could potentially cause us to cease operations.

If we are able to resubmit an NDA for Zalviso with new clinical data, there is no guarantee that such data will be deemed sufficient by the FDA. While we designed the protocols for bench testing and the Human Factors studies to address the issues raised in the CRL, and designed the protocol for the additional Zalviso clinical trial to further address these issues, there is no guarantee that the FDA will deem such protocols and results sufficient to address those issues when they are formally reviewed as a part of an NDA resubmission.

Lastly, even if we believe that the test results from our bench testing and Human Factors studies are positive, and we are able to conduct and achieve positive results from the additional clinical trial the FDA has requested, the FDA may hold a different opinion and deem the results insufficient. The FDA may provide review commentary at any time during the resubmission and review process which could adversely affect or even prevent the approval of Zalviso, which would adversely affect our business. We may not be able to identify appropriate remediations to issues that the FDA may raise, and we may not have sufficient time nor financial resources to conduct future activities to remediate issues raised by the FDA.

Our product candidates may cause adverse effects or have other properties that could delay or prevent their regulatory approval or limit the scope of any approved label or market acceptance.*

Adverse events, or AEs, caused by our product candidates could cause us, other reviewing entities, clinical trial sites or regulatory authorities to interrupt, delay or halt clinical trials and could result in the denial of regulatory approval. In our Phase 3 active comparator clinical trial (IAP309), 7.9% of Zalviso-treated patients dropped out of the trial prematurely due to an AE, and we observed one serious adverse event, or SAE, that was assessed as possibly or probably related to Zalviso. In our Phase 3, double-blind, placebo-controlled, abdominal surgery trial (IAP310), adverse events reported in the trial were generally mild or moderate in nature and similar in both placebo and treatment groups. In addition, one patient in the trial, who was in the sufentanil sublingual tablet group, experienced an SAE, which was determined to be unrelated to the trial drug. In our Phase 3, double-blind, placebo-controlled, orthopedic surgery trial (IAP311), treatment-emergent adverse events were generally mild-to-moderate in nature and similar for the majority of adverse events between sufentanil sublingual tablet- and placebo-treated patients. Two patients (one each in the sufentanil sublingual tablet group and placebo group) experienced a serious adverse event considered possibly or probably related to the trial drug by the investigator.

In our Phase 2 ARX-04 trial, two serious adverse events (SAEs), both in the 20 mcg-dose group, occurred one week after the study (surgical infections) and were deemed unrelated to study drug. All but two adverse events reported in the study were mild-to-moderate in nature with 58 patients (58%) reporting a total of 135 adverse events. The most frequently reported adverse events for all patients were nausea (30%), vomiting (17%), dizziness (14%) and somnolence (11%). Two patients discontinued treatment, one unrelated to study drug (anxiety/chest pain) and the other probably related to study drug (somnolence/respiratory depression); however, both patients recovered without medical intervention.

Phase 2 clinical trials conducted by us with our Zalviso, ARX-02 and ARX-03 product candidates have to date generated some AEs, but no SAEs, related to the trial drug.

Further, if any of our future products, including Zalviso or ARX-04 cause serious or unexpected side effects after receiving marketing approval, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw their approval of the product or impose restrictions on its distribution in the form of a modified Risk Evaluation and Mitigation Strategy, or REMS;
- regulatory authorities may require the addition of labeling statements, such as warnings or contraindications;
- we may be required to change the way the product is administered or conduct additional clinical trials;
- we could be sued and held liable for harm caused to patients; or
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product candidate and could substantially increase the costs of commercializing our product candidates.

Additional time may be required to obtain U.S. regulatory approval for ARX-04 and Zalviso because they are drug/device combination.*

ARX-04 and Zalviso are combination product candidates with both drug and device components. The FDA requires both the drug and device components of combination product candidates to be reviewed as part of an NDA submission. There are very few examples of the FDA approval process for drug/device combination products such as ARX-04 and Zalviso. As a result, we have in the past, and may in the future, experience delays in the development and commercialization of Zalviso due to regulatory uncertainties in the product development and approval process, in particular as it relates to a drug/device combination product approval under an NDA, and we may experience similar delays and regulatory uncertainties when, and if, we submit the NDA for ARX-04. For example, the Zalviso CRL received from the FDA in July 2014 contains requests for additional information on the Zalviso System to ensure proper use of the device. The requests include submission of data demonstrating a reduction in the incidence of optical system errors, changes to address inadvertent dosing, among other items, and submission of additional data to support the shelf life of the product. Furthermore, in March 2015, we received correspondence from the FDA stating that in addition to the bench testing and two Human Factors studies we had performed in response to the issues identified in the CRL, a clinical trial is needed to assess the risk of inadvertent dispensing and overall risk of dispensing failures. Based on the results of the Type C meeting with FDA, which took place in early September, we have submitted a protocol to the FDA for a clinical study in post-operative patients designed to evaluate the effectiveness of changes made to the Zalviso device to enhance product performance. We may be unable to come to an agreement with the FDA on the design or objectives of the requested clinical trial. Even if we come to an agreement on the design and objectives of the clinical trial and are able to complete the clinical trial, the FDA may deem the results of the clinical trial, as well as bench testing and/or the Human Factors studies inadequate, which could delay or preclude any approval of Zalviso.

We cannot predict when we will obtain regulatory approval to commercialize any of our product candidates, if at all, and we cannot, therefore, predict the timing of any future revenue.*

We cannot commercialize any of our product candidates, including ARX-04 or Zalviso, until the appropriate regulatory authorities, such as the FDA or the European Medicines Agency, or EMA, have reviewed and approved the product candidate. The regulatory agencies may not complete their review processes in a timely manner, or we may be unable to obtain regulatory approval for our product candidates. In September 2015, the European Commission approved Grünenthal GmbH, or Grünenthal's, Marketing Authorization Application, or MAA, for Zalviso for postoperative pain; however, we cannot predict the commercial success of Zalviso and thus its impact on us because commercial sales in Europe have not yet begun. We received a CRL for Zalviso on July 25, 2014, which contains requests for additional information on the Zalviso System. In addition, in March 2015, we received correspondence from the FDA stating that in addition to the bench testing and two Human Factors studies we had performed in response to the issues identified in the CRL, a clinical trial is needed to assess the risk of inadvertent dispensing and overall risk of dispensing failures. Based on our Type C meeting with the FDA in early September 2015 to discuss the FDA's request for an additional clinical trial and our planned response to the CRL, we have submitted a protocol to the FDA for a clinical study in post-operative patients designed to evaluate the effectiveness of changes made to enhance Zalviso product performance. While we expect to be ready to initiate the study in the first quarter of 2016, we likely will await comments on the protocol from the FDA. There is no guarantee that we will receive the FDA's comments on the protocol before or during the first quarter of 2016. Further, we may be unable to come to an agreement with the FDA on the design or objectives of the requested clinical trial. As a result, the initiation of the trial might be delayed. Alternatively, we might commence the trial before reaching an agreement with the FDA on the protocol. Even if we are able to agree on the protocol for an additional Zalviso clinical trial with the FDA, there is no guarantee that the trial results will address the issues raised by the FDA. Additional delays may result if any of our product candidates is taken before an FDA Advisory Committee which may recommend restrictions on approval or recommend non-approval. In addition, we may experience delays or rejections based upon additional government regulation from future legislation or administrative action, or changes in regulatory agency policy during the period of product development, clinical trials and the review process.

The FDA and other foreign regulatory agencies, such as EMA, can delay, limit or deny marketing approval for many reasons, including:

- a product candidate may not be considered safe or effective;
- the manufacturing processes or facilities we have selected may not meet the applicable requirements; and
- changes in their approval policies or adoption of new regulations may require additional work on our part.

Part of the regulatory approval process includes compliance inspections of manufacturing facilities to ensure adherence to applicable regulations and guidelines. The regulatory agency may delay, limit or deny marketing approval of our product candidates as a result of such inspections. In June 2014, the FDA completed an inspection at our corporate offices. We received a single observation on a Form 483 as a result of the inspection. In addition, in January 2015, EMA conducted a pre-approval inspection of our Zalviso contract manufacturer's manufacturing and packaging site, and provided its observations. Although we believe we have adequately addressed these observations in revised standard operating procedures, we, our contract manufacturers, and their vendors, are all subject to preapproval and post-approval inspections at any time. The results of these inspections could impact our ability to obtain FDA approval for Zalviso and, if approved, our ability to launch and successfully commercialize Zalviso in the United States. In addition, results of EMA inspections could impact our ability to maintain EC approval of Zalviso, and Grünenthal's ability to commercially launch and sustain sales of Zalviso in the EU.

Any delay in, or failure to receive or maintain, approval for any of our product candidates could prevent us from generating meaningful revenues or achieving profitability. Our product candidates may not be approved even if they achieve their endpoints in clinical trials. Regulatory agencies, including the FDA or EMA, or their advisors, may disagree with our trial design and our interpretations of data from preclinical studies and clinical trials. Regulatory agencies may change requirements for approval even after a clinical trial design has been approved. The FDA exercises significant discretion over the regulation of combination products, including the discretion to require separate marketing applications for the drug and device components in a combination product. To date, our product candidates are being regulated as drug products under the NDA process administered by the FDA. The FDA could in the future require additional regulation of our product candidates under the medical device provisions of the FDCA. We must comply with the Quality Systems Regulation, or QSR, which sets forth the FDA's current good manufacturing practice, or cGMP, requirements for medical devices, and other applicable government regulations and corresponding foreign standards for drug cGMPs. If we fail to comply with these regulations, it could have a material adverse effect on our business and financial condition.

Regulatory agencies also may approve a product candidate for fewer or more limited indications than requested or may grant approval subject to the performance of post-marketing trials. In addition, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of our product candidates. For example, we intend to resubmit our NDA seeking approval of Zalviso for the management of moderate-to-severe acute pain in adult patients in the hospital setting; however, our clinical trial data was generated exclusively from the post-operative segment of this population, and the FDA may restrict any approval to post-operative patients only, which would reduce our commercial opportunity.

The process for obtaining approval of an NDA is time consuming, subject to unanticipated delays and costs, and requires the commitment of substantial resources.

If the FDA determines that any of the clinical work submitted, including the clinical trials, Human Factors studies and bench testing submitted for a product candidate in support of an NDA were not conducted in full compliance with the applicable protocols for these trials, studies and testing as well as with applicable regulations and standards, or if the FDA does not agree with our interpretation of the results of such trials, studies and testing, the FDA may reject the data and results. The FDA may audit some or all of our clinical trial sites to determine the integrity of our clinical data. The FDA may audit some or all of our Human Factors study sites to determine the integrity of our data and may audit the data and results of bench testing. Any rejection of any of our data would negatively impact our ability to obtain marketing authorization for a product candidate and would have a material adverse effect on our business and financial condition. In addition, an NDA may not be approved, or approval may be delayed, as a result of changes in FDA policies for drug approval during the review period. For example, although many products have been approved by the FDA in recent years under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, or FDCA, objections have been raised to the FDA's interpretation of Section 505(b)(2). If challenges to the FDA's interpretation of Section 505(b)(2) are successful, the FDA may be required to change its interpretation, which could delay or prevent the approval of such an NDA. Any significant delay in the acceptance, review or approval of an NDA that we have submitted would have a material adverse effect on our business and financial condition and would require us to obtain significant additional funding.

Even if we obtain regulatory approval for ARX-04, Zalviso and our other product candidates in the United States, we and our collaborators face extensive regulatory requirements and our products may face future development and regulatory difficulties.*

Even if we obtain regulatory approval in the United States, the FDA may impose significant restrictions on the indicated uses or marketing of our product candidates, or impose ongoing requirements for potentially costly post-approval trials or post-market surveillance. Additionally, the labeling ultimately approved for ARX-04, Zalviso and our other product candidates, if approved, will likely include restrictions on use due to the opioid nature of sufentanil.

ARX-04, Zalviso and our other product candidates, if approved in the future, will also be subject to ongoing FDA requirements governing the labeling, packaging, storage, distribution, safety surveillance, advertising, promotion, record-keeping and reporting of safety and other post-market information. The holder of an approved NDA is obligated to monitor and report AEs and any failure of a product to meet the specifications in the NDA. The holder of an approved NDA must also submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. Advertising and promotional materials must comply with FDA rules and are subject to FDA review, in addition to other potentially applicable federal and state laws.

We must also register and obtain various state prescription drug distribution licenses and controlled substance permits, and any delay or failure to obtain or maintain these licenses or permits may limit our market and materially impact our business. In addition, manufacturers of drug products and their facilities are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMPs and adherence to commitments made in the NDA. If we, or a regulatory agency, discover previously unknown problems with a product, such as AEs of unanticipated severity or frequency, or problems with the facilities where the product is manufactured, a regulatory agency may impose restrictions relative to that product or the manufacturing facilities, including requiring recall or withdrawal of the product from the market or suspension of manufacturing.

If we fail to comply with applicable regulatory requirements following approval of our product candidates, a regulatory agency may:

- issue a warning letter asserting that we are in violation of the law;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve a pending NDA or supplements to an NDA submitted by us;
- seize product; or
- refuse to allow us to enter into supply contracts, including government contracts.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize any future approved products and generate revenues.

Even if we obtain FDA approval for ARX-04, Zalviso or any of our product candidates in the United States, we may never obtain approval for or commercialize our products outside of the United States, which would limit our ability to realize their full market potential.*

In order to market any products outside of the United States, we or our commercial partners, including Grünenthal in Europe, must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. On September 22, 2015, we announced that the European Commission had approved Grünenthal's MAA for Zalviso for the management of acute moderate-to-severe post-operative pain in adult patients.

Outside of Europe, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. Approval processes vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approval could result in difficulties and costs for us and require additional non-clinical trials or clinical trials, which could be costly and time consuming. Regulatory requirements can vary widely from country-to-country and could delay or prevent the introduction of our products in those countries. Our current clinical trial data may not be sufficient to support marketing approval in all territories. In addition, we lack the personnel, expertise and capabilities to gain regulatory approval of our product candidates on a global basis without a commercial partner. With Zalviso's approval for sale in Europe, we will rely on Grünenthal to commercialize it. While Grünenthal does have products approved in international markets, we do not have any product candidates approved for sales in any jurisdiction, including international markets, and we do not have experience in obtaining regulatory approval in international markets. Grünenthal's experience in international markets does not guarantee regulatory approval or compliance with regulatory requirements in international markets. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, or if regulatory approvals in international markets are delayed, our target market will be reduced and our ability to realize the full market potential of our products will be harmed.

ARX-04, Zalviso and our other product candidates will require Risk Evaluation and Mitigation Strategies.*

Our product candidates, if approved in the United States, will require REMS. The REMS may include requirements for special labeling or medication guides for patients, special communication plans to health care professionals and restrictions on distribution and use. While we have received pre-clearance from the FDA regarding certain aspects of the proposed required REMS for Zalviso, we cannot predict the final REMS to be required as part of any FDA approval of Zalviso. Depending on the extent of the REMS requirements, any United States launch may be delayed, the costs to commercialize Zalviso may increase substantially and the potential commercial market could be restricted. ARX-02, ARX-03 and ARX-04, if approved, will also require REMS programs that may significantly increase our costs to commercialize these product candidates. Furthermore, risks of sufentanil that are not adequately addressed through proposed REMS for our future product candidates, if approved, may also prevent or delay their approval for commercialization.

Existing and future legislation may increase the difficulty and cost for us to commercialize ARX-04, Zalviso and any of our product candidates that may obtain commercial approval in the future, and affect the prices we may obtain.*

In the United States and some foreign jurisdictions, the legislative landscape continues to evolve. There have been a number of legislative and regulatory changes and proposed changes regarding healthcare systems that could prevent or delay marketing approval of Zalviso outside the EU, or our other product candidates, including ARX-04, restrict or regulate post-approval activities for ARX-04 and Zalviso, and affect our ability to profitably sell any products for which we obtain marketing approval.

In the United States, the Health Care Reform Law (as defined below) was enacted in an effort to, among other things, broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, impose new taxes and fees on the health industry and impose additional health policy reforms. Aspects of the Health Care Reform Law that may impact our business include:

- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- a deductible 2.3% excise tax, with limited exceptions, on the sale of certain medical devices by the manufacturer of the device;
- new methodologies by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, and for drugs that are line extensions;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;

- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for certain individuals with income at or below 133.0% of the Federal Poverty Level beginning in 2014, thereby potentially increasing manufacturers' Medicaid rebate liability;

- expansion of healthcare fraud and abuse laws, including the federal False Claims Act and the federal Anti-Kickback Statute, new government investigative powers and enhanced penalties for non-compliance;

- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians;

- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and

- creation of the Independent Payment Advisory Board which has authority to recommend certain changes to the Medicare program that could result in reduced payments for prescription drugs.

The Health Care Reform Law has the potential to substantially change health care financing and delivery by both governmental and private insurers, and may also increase our regulatory burdens and operating costs.

In addition, other legislative changes have been proposed and adopted in the United States since the Health Care Reform Law was enacted. On August 2, 2011, the Budget Control Act of 2011 created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This included aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and will stay in effect through 2024 unless additional Congressional action is taken. On January 2, 2013, the American Tax Payer Relief Act was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals.

Moreover, the Drug Supply Chain Security Act of 2013, imposes new obligations on manufacturers of pharmaceutical products, among others, related to product tracking and tracing. Among the requirements of this new legislation, manufacturers will be required to provide certain information regarding the drug product to individuals and entities to which product ownership is transferred, label drug product with a product identifier, and keep certain records regarding the drug product.

Legislative and regulatory proposals have been made to expand post-approval requirements and further restrict sales and promotional activities for pharmaceutical products. We are not sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be.

We expect that additional healthcare reform measures will be adopted within and outside the United States in the future, any of which could negatively impact our business. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect the demand for any drug products for which we may obtain regulatory approval, our ability to set a price that we believe is fair for our products, our ability to obtain coverage and reimbursement approval for a product, our ability to generate revenues and achieve or maintain profitability, and the level of taxes that we are required to pay.

Risks Related to Our Financial Condition and Need for Additional Capital

We have incurred significant losses since our inception, anticipate that we will continue to incur significant losses in 2015 and may continue to incur losses for the foreseeable future.*

Since our inception in 2005, we have focused primarily on development of our product candidate, Zalviso. In September 2015, we announced that a pivotal Phase 3 study of ARX-04, SAP301, met all primary and secondary endpoints and in October 2015, we announced the initiation of SAP302, a Phase 3 study of ARX-04 in the emergency room, intended to complete the safety database requirements previously agreed to with the FDA. We have two additional product candidates that have completed Phase 2 development: the sufentanil sublingual tablet BTP management system, or ARX-02, the sufentanil/triazolam sublingual tablet, or ARX-03, and we have incurred significant net losses in each year since our inception in July 2005, and as of September 30, 2015, we had an accumulated deficit of $192.7 million.

We have devoted most of our financial resources to research and development, including our non-clinical development activities and clinical trials. To date, we have financed our operations primarily through the sale of equity securities, debt, government contract funding, sale of royalty and milestones, and proceeds from our commercial partner, Grünenthal. The size of our future net losses will depend, in part, on the rate of future expenditures and our ability to generate revenues. We expect to continue to incur substantial expenses as we continue our research and development activities for our product candidates, including addressing issues raised by the FDA related to regulatory review of Zalviso, as well as to support manufacturing and supply of Zalviso in Europe for Grünenthal. To date, none of our product candidates have been commercialized, and if ARX-04, Zalviso, or our other product candidates are not successfully developed or commercialized, or if revenues are insufficient following marketing approval, we will not achieve profitability and our business may fail. Our success is also dependent on obtaining regulatory approval to market our product candidates outside of the United States through current and future collaborations which may not materialize or prove to be successful.

We are substantially dependent on our commercial partner, Grünenthal, to successfully commercialize Zalviso in Europe.*

On December 16, 2013, we entered into a Collaboration and License Agreement, or the License Agreement, and related Manufacture and Supply Agreement, or the MSA, and together with the License Agreement, the Agreements, with Grünenthal. On July 22, 2015, we entered into amendments to the License Agreement, or the License Amendment, and the MSA, or the MSA Amendment, with Grünenthal, each effective as of July 17, 2015, and together with the License Agreement, and the MSA, the Amended Agreements. The Amended Agreements grant rights to commercialize Zalviso in the European Union, or EU, Switzerland, Liechtenstein, Iceland, Norway and Australia, or the Territory, for human use in pain treatment within or dispensed by hospitals, hospices, nursing homes and other medically-supervised settings. In September 2015, the European Commission approved Grünenthal's MAA for Zalviso for postoperative pain. Grünenthal has stated that it expects to initiate commercialization of Zalviso in Western Europe in the first half of 2016. In September 2015, we consummated a monetization transaction with PDL BioPharma, Inc., or PDL, pursuant to which we sold to PDL for $65.0 million 75% of the European royalties from sales of Zalviso and 80% of the first four commercial milestones under the License Agreement, subject to a capped amount, referred to as the Royalty Monetization. Even if Grünenthal is successful in the commercialization of Zalviso in the EU, we will receive only 25% of the royalties and 20% of the first four commercial milestones under the License Agreement, and 100% of the royalties after the capped amount is reached. Any failures in commercialization of Zalviso outside the United States could have a material adverse impact on our business, including an adverse impact on the development of ARX-04 or Zalviso in the United States, if related to issues underlying the sufentanil sublingual tablet technology, safety or efficacy. Additionally, we agreed to certain representations and covenants relating to the Amended Agreements under our agreements with PDL, and, if we breach those representations or covenants, we may become subject to indemnification claims by PDL and liable to PDL for its indemnifiable losses relating to such breaches. The amount of such losses could be material and could have a material adverse impact on our business.

We have never generated product revenue and may never be profitable.*

Our ability to generate revenue from commercial sales and achieve profitability depends on our ability, alone or with collaborators, to successfully complete the development of, obtain the necessary regulatory approvals for, and commercialize our product candidates. We may never generate revenues from sales of ARX-04, Zalviso or our other product candidates in the United States. While we have a collaboration with Grünenthal for commercialization of Zalviso in Europe and Australia, we may not achieve all of the development milestones associated with the collaboration, and Grünenthal may not recognize commercial sales of Zalviso, for which we would receive sales milestone payments and product royalties. Even if Grünenthal is successful in commercialization of Zalviso, as a result of our sale to PDL of certain expected royalties from the sales of Zalviso by Grünenthal and a portion of our first four commercial sales milestones, we will receive only 25% of the royalties and 20% of the first four commercial milestones under the Amended License Agreement. In addition, we do not anticipate generating revenues from our other product candidates for the foreseeable future, if ever. Our ability to generate future revenues from product sales depends heavily on our success in:

- obtaining and maintaining regulatory approval for ARX-04 and/or Zalviso in the United States and/or in Europe;
- launching and commercializing ARX-04 and/or Zalviso, including building internally or through entering a collaboration, a hospital-directed sales force in the United States and with third parties internationally, including Grünenthal, which may require additional funding; and
- completing the clinical development of, obtaining regulatory approval for, and launching and commercializing ARX-04, which may require additional funding or corporate partnership resources.

Because of the numerous risks and uncertainties associated with pharmaceutical product development and the regulatory environment, we are unable to predict the timing or amount of increased expenses, or when, or if, we will be able to achieve or maintain profitability. Our expenses could increase beyond expectations if we are delayed in receiving regulatory approval, or in launching ARX-04 and/or Zalviso in the United States, or if we are required by the FDA to complete activities in addition to those we currently anticipate or have already completed.

Even if one or more of our product candidates is approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate. Even if we are able to generate revenues from the sale of any future approved products, we may not become profitable and may need to obtain additional funding to continue operations.

We have a limited operating history that may make it difficult to predict our future performance or evaluate our business and prospects.*

We were incorporated in 2005. Since inception, our operations have been primarily limited to organizing and staffing our company, developing our technology and undertaking pharmaceutical development and clinical trials for our product candidates, understanding the market potential for our product candidates and preparing for the potential commercialization of ARX-04 and Zalviso in the United States. We have not yet obtained regulatory approval of any of our product candidates in the United States. Consequently, any predictions that are made about our future success, or viability, or evaluation of our business and prospects, may not be accurate.

We will require additional capital and may be unable to raise capital, which would force us to delay, reduce or eliminate our product development programs and could cause us to cease operations.*

Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. We expect to incur significant expenditures in connection with our ongoing activities, including conducting ARX-04 Phase 3 clinical trials, development activities associated with ARX-04, including regulatory costs in support of the potential NDA filing, development activities associated with Zalviso, to respond to issues raised by the FDA, and other research and development activities to advance our product candidates. While we believe we have sufficient capital resources to continue planned operations through at least the first half of 2017, we may need additional capital to continue development and commercialization of ARX-04, Zalviso, and our other product candidates and will need additional capital to potentially pursue commercialization of any of our product candidates.

Future events and circumstances, including those beyond our control, may cause us to consume capital more rapidly than we currently anticipate. For example, in March 2015, we received correspondence from the FDA stating that we needed to complete an additional clinical trial of Zalviso. Any further development activities can be time consuming and costly. We have submitted a protocol to the FDA for a clinical study in post-operative patients designed to evaluate the effectiveness of changes made to enhance product performance. We expect to be ready to initiate the study in the first quarter of 2016, but likely will await comments on the protocol from the FDA prior to study initiation. There is no guarantee that we will receive the FDA's comments on the protocol before or during the first quarter of 2016. Further, we may be unable to come to an agreement with the FDA on the design or objectives of the requested clinical trial. As a result, the initiation of the trial might be delayed. Alternatively, AcelRx might commence the trial before reaching an agreement with the FDA on the protocols. Even if we are able to agree on the protocol for an additional Zalviso clinical trial with the FDA, there is no guarantee that the trial results will address the issues raised by the FDA. Clinical trials, regulatory reviews, and a potential launch of a commercial product are expensive activities. In addition, commercialization costs for ARX-04 and Zalviso in the United States may be significantly higher than estimated. We may experience technical difficulties in our commercialization efforts or otherwise, which could substantially increase the costs of commercialization. Revenues may be lower than expected and accordingly costs to produce such revenues may exceed those revenues. We will need to seek additional capital to continue operations. Such capital demands could be substantial. To raise capital, we may seek to sell additional equity or debt securities, monetize or securitize certain assets including future royalty streams and milestones, obtain a credit facility, or enter into product development, license or distribution agreements with third parties, or divest one or more of our product candidates. Such arrangements may not be available on favorable terms, if at all. Furthermore, any product development, licensing, distribution or sale agreements that we enter into may require us to relinquish valuable rights. We may not be able to obtain sufficient additional funding or enter into a strategic transaction in a timely manner. If adequate funds are not available, we would be required to reduce our workforce, delay, reduce the scope of, or eliminate, one or more of our research and development programs in advance of the date on which we exhaust our cash resources to ensure that we have sufficient capital to meet our obligations and continue on a path designed to preserve stockholder value.

Securing additional financing may divert our management from our day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. If we are unable to raise additional capital when required or on acceptable terms, we may be required to:

- significantly delay, scale back or discontinue the development or commercialization of our product candidates;
- seek additional corporate partners for Zalviso on terms that might be less favorable than might otherwise be available; or
- relinquish, or license on unfavorable terms, our rights to technologies or product candidates that we otherwise would seek to develop or commercialize ourselves.

We may sell additional equity or debt securities to fund our operations, which may result in dilution to our stockholders and impose restrictions on our business.

In order to raise additional funds to support our operations, we may sell additional equity or debt securities which would result in dilution to our stockholders or impose restrictive covenants that may adversely impact our business. The sale of additional equity or convertible debt securities would result in the issuance of additional shares of our capital stock and dilution to all of our stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and could also result in certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions, such as minimum cash balances, that could adversely impact our ability to conduct our business. If we are unable to expand our operations or otherwise capitalize on our business opportunities, our business, financial condition and results of operations could be materially adversely affected and we may not be able to meet our debt service obligations.

We might be unable to service our existing debt due to a lack of cash flow and might be subject to default.*

In December 2013, we entered into an amended loan and security agreement, or the Amended Loan Agreement, with Hercules Technology II, L.P. and Hercules Technology Growth Capital, Inc., collectively referred to as Hercules, under which we may borrow up to $40.0 million in three tranches, represented by secured convertible promissory notes. We drew the first tranche of $15.0 million at the closing of the new credit facility and the second tranche of $10.0 million on June 16, 2014. We will not have access to the third tranche of up to $15.0 million under the current agreement, as it was conditioned upon FDA approval to market Zalviso in the United States by August 1, 2015, which we did not obtain. We began making principal payments in April 2015. The scheduled maturity date is October 31, 2017. On September 18, 2015, we amended the Amended Loan Agreement with Hercules to extend an interest only period from October 1, 2015 through March 31, 2016, with the potential for further extension to September 30, 2016 upon satisfaction of certain conditions, which have since been satisfied.

We granted Hercules a first priority security interest in substantially all of our assets, with the exception of our intellectual property and those assets sold under the Royalty Monetization, where the security interest is limited to proceeds of intellectual property if it is licensed or sold.

If we do not make the required payments when due, either at maturity, or at applicable installment payment dates, or if we breach the agreement or become insolvent, Hercules could elect to declare all amounts outstanding, together with accrued and unpaid interest and penalty, to be immediately due and payable. Additional capital may not be available on terms acceptable to us, or at all. In addition, we recently sold a portion of the royalties and first four commercial sales milestone payments we are entitled to receive under the Amended Agreements with Grünenthal to PDL, which will decrease future cash flows available to us to repay the Hercules debt. Even if we were able to repay the full amount in cash, any such repayment could leave us with little or no working capital for our business. If we are unable to repay those amounts, Hercules will have a first claim on our assets pledged under the Amended Loan Agreement. If Hercules should attempt to foreclose on the collateral, it is unlikely that there would be any assets remaining after repayment in full of such secured indebtedness. Any default under the Amended Loan Agreement and resulting foreclosure would have a material adverse effect on our financial condition and our ability to continue our operations.

We may not receive all of the funding from the Department of Defense for the advancement of ARX-04.*

On May 11, 2015, we entered into an award contract supported by the United States Army Medical Research and Materiel Command, or USAMRMC, within the U.S. Department of Defense, or the DoD, in which the DoD agreed to provide up to $17.0 million to support the development of ARX-04, referred to as the DoD Contract. The DoD Contract will support development of ARX-04 to perform Phase 3 clinical trials and manufacturing activities in order to submit an NDA to the FDA. Under the terms of the contract, the DoD will reimburse us for costs incurred for development, manufacturing and clinical costs outlined in the contract, including reimbursement for certain personnel and overhead expenses. The period of performance under the contract begins on May 11, 2015 and ends on November 10, 2016. The contract gives the DoD the option to extend the term of the contract and provide additional funding for the research. Funding under this contract will be subject to audit by the DoD to ensure adherence to specific guidance, policies and procedures. The DoD may find deficiencies during the course of an audit which could jeopardize, or even eliminate, continued funding from the DoD, as well as require repayment of any funds they had provided us since inception of the contract. The lack of ARX-04 supportive funding, may adversely affect our ability to continue to advance the development of ARX-04.

Risks Related to Our Reliance on Third Parties

We rely on third party manufacturers to produce our preclinical and clinical drug supplies and intend to rely on third parties to produce commercial supplies of any approved product candidates.*

Reliance on third party manufacturers entails many risks including:

- the inability to meet our product specifications and quality requirements consistently;
- a delay or inability to procure or expand sufficient manufacturing capacity;
- manufacturing and product quality issues related to scale-up of manufacturing;
- costs and validation of new equipment and facilities required for scale-up;
- a failure to comply with cGMP and similar foreign standards;
- the inability to negotiate manufacturing agreements with third parties under commercially reasonable terms;

- termination or nonrenewal of manufacturing agreements with third parties in a manner or at a time that is costly or damaging to us;
- the reliance on a limited number of sources, and in some cases, single sources for product components, such that if we are unable to secure a sufficient supply of these product components, we will be unable to manufacture and sell our product candidates in a timely fashion, in sufficient quantities or under acceptable terms;
- the lack of qualified backup suppliers for those components that are currently purchased from a sole or single source supplier;
- operations of our third party manufacturers or suppliers could be disrupted by conditions unrelated to our business or operations, including the bankruptcy of the manufacturer or supplier;
- carrier disruptions or increased costs that are beyond our control; and
- the failure to deliver our products under specified storage conditions and in a timely manner.

Any of these events could lead to stock outs, inability to successfully commercialize our products, clinical trial delays, or failure to obtain regulatory approval. Some of these events could be the basis for FDA action, including injunction, recall, seizure, or total or partial suspension of production.

As mentioned above, we have entered into the Amended Agreements with Grünenthal under which we are obligated to manufacture and supply Zalviso for use in the EU and their other licensed territories. If we are unable to establish a reliable commercial supply of Zalviso for Grünenthal's Territory, we may be unable to satisfy our obligations under the Amended Agreements in a timely manner or at all, and we may, as a result, be in breach of the Amended Agreements.

We rely on limited sources of supply for the drug component of our product candidates and any disruption in the chain of supply may cause delay in developing and commercializing our product candidates.

Currently, we use two established suppliers of sufentanil citrate for our tablets. We only have one supplier qualified for our manufacture of Zalviso. For each product candidate, only one of the two suppliers will be qualified as a vendor with the FDA. If supply from the approved vendor is interrupted, there could be a significant disruption in commercial supply. The alternative vendor would need to be qualified through an NDA supplement which could result in further delay. The FDA or other regulatory agencies outside of the United States may also require additional trials if a new sufentanil supplier is relied upon for commercial production.

Manufacture of sufentanil sublingual tablets requires specialized equipment and expertise.

Ethanol, which is used in the manufacturing process for our sufentanil sublingual tablets, is flammable, and sufentanil is a highly potent, Schedule II compound. These factors necessitate the use of specialized equipment and facilities for manufacture of sufentanil sublingual tablets. There are a limited number of facilities that can accommodate our manufacturing process and we need to use dedicated equipment throughout development and commercial manufacturing to avoid the possibility of cross-contamination. If our equipment breaks down or needs to be repaired or replaced, it may cause significant disruption in clinical or commercial supply, which could result in delay in the process of obtaining approval for or sale of our products. Furthermore, we are using one manufacturer to produce our sufentanil sublingual tablets and have not identified a back-up commercial facility to date. Any problems with our existing facility or equipment, including ongoing expansion, may delay or impair our ability to complete our clinical trials or commercialize our product candidates and increase our cost.

Manufacturing issues may arise that could delay or increase costs related to product and regulatory approval, and commercialization.*

As we scale up manufacturing of our product candidates and conduct required stability testing, product, packaging, equipment and process-related issues may require refinement or resolution in order to obtain regulatory approval for commercial marketing. In the past we have identified impurities in our product candidates. In the future we may identify significant impurities, which could result in increased scrutiny by the regulatory agencies, delays in clinical program and regulatory approval, increases in our operating expenses, or failure to obtain or maintain approval for our products.

Early development and clinical trial manufacturing of Zalviso was conducted at Patheon in Toronto, Canada. Because the DEA requires that sufentanil be manufactured in the United States if our product candidates are marketed in the United States, we transferred our manufacturing capability in the third quarter of 2011 from Patheon in Toronto, Canada to Patheon's production facility in Cincinnati, Ohio, where we have built out a suite within their existing buildings that will serve as a manufacturing facility for clinical and commercial supplies of sufentanil sublingual tablets. Late stage development and manufacture of registration stability lots, which were utilized in clinical trials, were manufactured at Patheon, Cincinnati. While we have successfully manufactured validation lots, we have not yet produced commercial supplies at this facility and we may encounter difficulties in production at the new facility, which may adversely affect our clinical and commercial plans and our ability to deliver product to Grünenthal.

In January 2013, we entered into a Manufacturing Services Agreement, or the Services Agreement, with Patheon under which Patheon has agreed to manufacture, supply, and provide certain validation and stability services with respect to Zalviso for potential sales in the United States, Canada, Mexico and other countries, subject to agreement by the parties to any additional fees for such other countries. There is no guarantee that Patheon's services will be satisfactory or that they will continue to meet the strict regulatory guidelines of the FDA or other foreign regulatory agencies. In addition, in January 2013, we entered into an Amended and Restated Capital Expenditure and Equipment Agreement, or the Amended Capital Agreement, with Patheon, relating to the manufacture of sufentanil sublingual tablets. Under the terms of the Amended Capital Agreement, we have made and may make certain future modifications to Patheon's Cincinnati facility.

If Patheon cannot provide us with an adequate supply of sufentanil sublingual tablets, we may be required to pursue alternative sources of manufacturing capacity. Switching or adding commercial manufacturing capability can involve substantial cost and require extensive management time and focus, as well as additional regulatory filings which may result in significant delays. In addition, there is a natural transition period when a new manufacturing facility commences work. As a result, delays may occur, which can materially impact our ability to meet our desired commercial timelines, thereby increasing our costs and reducing our ability to generate revenue.

The facilities of any of our future manufacturers of sufentanil-containing sublingual tablets must be approved by the FDA or the relevant foreign regulatory agency, such as EMA, before commercial distribution from such manufacturers occurs. We do not fully control the manufacturing process of sufentanil sublingual tablets and are completely dependent on these third party manufacturing partners for compliance with the FDA or other foreign regulatory agency's requirements for manufacture. In addition, although our third party manufacturers are well established commercial manufacturers, we are dependent on their continued adherence to cGMP manufacturing and acceptable changes to their process. If our manufacturers do not meet the FDA or other foreign regulatory agency's strict regulatory requirements, they will not be able to secure FDA or other foreign regulatory agency approval for their manufacturing facilities. Although European inspectors have approved our tablet manufacturing site, our third party manufacturing partner is responsible for maintaining compliance with the relevant foreign regulatory agency's requirements. If the FDA or the relevant foreign regulatory agency does not approve these facilities for the commercial manufacture of sufentanil sublingual tablets, we will need to find alternative suppliers, which would result in significant delays in obtaining FDA or other foreign regulatory agency approval for ARX-04 and Zalviso outside the EU. These challenges may have a material adverse impact on our business, results of operations, financial condition and prospects.

Related to the Zalviso device, we have conducted multiple Design Validation, Software Verification and Validation, Reprocessing and Human Factors studies, and have manufactured for and completed Phase 3 clinical trials using the intended commercial device. As mentioned above, the CRL from the FDA contains a request for additional information on the Zalviso System to ensure proper use of the device. In March 2015, we received correspondence from the FDA stating that in addition to the bench testing and two Human Factors studies we had performed in response to the issues identified in the CRL, a clinical trial is needed to assess the risk of inadvertent dispensing and overall risk of dispensing failures. We have made modifications to the design of the Zalviso device subsequent to the original submission of the Zalviso NDA, which we plan to include as a part of any resubmitted NDA. In early September 2015, we met with the FDA to discuss their request for an additional clinical trial and our planned response to the CRL. We recently received formal minutes of this meeting. In the minutes, the FDA provided some additional details about the type of clinical data they would like us to provide, as a complement to the other data we already have provided, to assess the overall performance of Zalviso. We have submitted a protocol to the FDA for a clinical study in post-operative patients designed to evaluate the effectiveness of changes made to enhance product performance. We expect to be ready to initiate the study in the first quarter of 2016, but likely will await comments on the protocol from the FDA prior to study initiation. There is no guarantee that we will receive the FDA's comments on the protocol before or during the first quarter of 2016. Further, we may be unable to come to an agreement with the FDA on the design or objectives of the requested clinical trial. As a result, the initiation of the trial might be delayed. Alternatively, AcelRx might commence the trial before reaching an agreement with the FDA on the protocols. Even if we are able to agree on the protocol for an additional Zalviso clinical trial with the FDA, there is no guarantee that the trial results will address the issues raised by the FDA. If we are required to further modify the Zalviso device, we may incur higher costs and experience delays in the United States approval and ultimate commercialization of Zalviso. Furthermore, if any additional changes to the device are substantial, the FDA may require us to perform further clinical trials or studies in order to approve the device for commercial use.

We have manufactured Zalviso devices and supplies on a small scale, including those needed for our Phase 3 clinical trials, and process validation for some of the device components has been completed. We, however, have not yet manufactured Zalviso devices and supplies on a large scale, for commercial purposes. We are completing the process validation for the device components and beginning to manufacture Zalviso devices and supplies for delivery to Grünenthal. We will continue to rely on contract manufacturers, component fabricators and third party service providers to produce the necessary Zalviso devices for the commercial marketplace. We currently outsource manufacturing and packaging of the controller, dispenser and cartridge components of the Zalviso device to third parties and intend to continue to do so. Some of these purchases and components were made and will continue to be made utilizing short-term purchase agreements and we may not be able to enter into long-term agreements for commercial supply of ARX-04 or Zalviso devices with third party manufacturers, or may be unable to do so on acceptable terms. In addition, we may encounter production issues with our current or future contract manufacturers and other third party service providers, including the reliability of the production equipment, quality of the components produced, their inability to meet demand or other unanticipated delays including the scale-up and automation process, which would adversely impact our ability to supply our customers with ARX-04, if approved, and Zalviso, in the EU, and if approved, in the U.S. and any other foreign territories.

We may not be able to establish additional sources of supply for sufentanil-containing sublingual tablets or device manufacture. Such suppliers are subject to FDA and other foreign regulatory agency's regulations requiring that materials be produced under cGMPs or Quality System Regulations, or QSR, or in ISO 13485 accredited manufacturers, and subject to ongoing inspections by regulatory agencies. Failure by any of our suppliers to comply with applicable regulations may result in delays and interruptions to our product candidate supply while we seek to secure another supplier that meets all regulatory requirements. In addition, if we are unable to establish a reliable commercial supply of Zalviso for Grünenthal's Territory, we may be unable to satisfy our obligations under the Amended Agreements in a timely manner or at all, and we may, as a result, be in breach of the Amended Agreements.

For ARX-04 we currently package the finished goods under a manual process at the Patheon facility. The capacity and cost to package the ARX-04 units under this manual process is not sufficient to support successful future sales of ARX-04. We will need to purchase, install and validate new equipment and processes to automate the ARX-04 manufacturing process. The purchase and subsequent installation of this equipment to automate the ARX-04 packaging process will require substantial resources and take several years. There is no assurance that we will be able to successfully purchase, install or validate the equipment necessary to automate the ARX-04 packaging process. If we are successful in the purchase, installation and validation of this equipment and process, there can be no assurance that we will be able to obtain the necessary regulatory approvals to manufacture product.

Reliance on third party manufacturers entails risks to which we would not be subject if we manufactured the product candidates ourselves, including the possible breach of the manufacturing agreements by the third parties because of factors beyond our control; and the possibility of termination or nonrenewal of the agreements by the third parties because of our breach of the manufacturing agreement or based on their own business priorities.

We rely on third parties to conduct, supervise and monitor our clinical trials, and if those third parties perform in an unsatisfactory manner, it may harm our business.

We utilized contract research organizations, or CROs, for the conduct of our Phase 3 clinical trials of Zalviso, the Phase 2 clinical trial of ARX-04, and our ongoing Phase 3 clinical program for ARX-04. We rely on CROs, as well as clinical trial sites, to ensure the proper and timely conduct of our clinical trials and document preparation. While we have agreements governing their activities, we have limited influence over their actual performance. We have relied and plan to continue to rely upon CROs to monitor and manage data for our clinical programs for ARX-04, Zalviso, and our other product candidates, as well as the execution of nonclinical and clinical trials. We control only certain aspects of our CROs' activities. Nevertheless, we are responsible for ensuring that each of our trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards and our reliance on the CROs does not relieve us of our regulatory responsibilities.

We, and our CROs, are required to comply with the FDA's current good clinical practices, or cGCPs, which are regulations and guidelines enforced by the FDA for all of our product candidates in clinical development. The FDA enforces these cGCPs through periodic inspections of trial sponsors, principal investigators and clinical trial sites. If we or our CROs fail to comply with applicable cGCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA may require us to perform additional clinical trials before approving our marketing applications. Upon inspection, the FDA may determine that our clinical trials do not comply with cGCPs. Accordingly, if our CROs or clinical trial sites fail to comply with these regulations, we may be required to repeat clinical trials, which would delay the regulatory process.

Our CROs are not our employees, and we cannot control whether or not they devote sufficient time and resources to our ongoing clinical and nonclinical programs. These CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials, or other drug development activities which could harm our competitive position. We face the risk of potential unauthorized disclosure or misappropriation of our intellectual property by CROs, which may allow our potential competitors to access our proprietary technology. If our CROs do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements, or for any other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for, or successfully commercialize ARX-04 and Zalviso, or our other product candidates. As a result, our financial results and the commercial prospects for ARX-04, Zalviso or any future product candidates for which we may obtain approval would be harmed, our costs could increase, and our ability to generate revenues could be delayed.

Risks Related to Commercialization of Our Product Candidates

The commercial success of ARX-04, Zalviso outside the EU, and our other product candidates, if approved, as well as Zalviso in the EU, will depend upon the acceptance of these products by the medical community, including physicians, nurses, patients, and pharmacy and therapeutics committees.*

The degree of market acceptance of ARX-04, Zalviso outside the EU and our other product candidates, if approved, as well as Zalviso in the EU, will depend on a number of factors, including:

- demonstration of clinical safety and efficacy compared to other products;
- the relative convenience, ease of administration and acceptance by physicians, patients and health care payors;
- the use of ARX-04 for the management of moderate-to-severe acute pain by a healthcare professional for patient types that were not specifically studied in our Phase 3 trials;
- the use of Zalviso for the management of moderate-to-severe acute pain in the hospital setting for patient types that were not specifically studied in our Phase 3 trials;
- the prevalence and severity of any AEs or SAEs;
- overcoming the perception of sufentanil as a potentially unsafe drug due to its high potency;
- limitations or warnings contained in the FDA-approved label for ARX-04 or Zalviso;
- restrictions or limitations placed on ARX-04 or Zalviso due to the REMS;
- availability of alternative treatments;
- existing capital investment by hospitals in IV PCA technology;
- pricing and cost-effectiveness;
- the effectiveness of our or any future collaborators' sales and marketing strategies;
- our ability to obtain hospital formulary approval;
- our ability to obtain and maintain sufficient third party coverage or reimbursement.

If our product candidates are approved, but do not achieve an adequate level of acceptance by physicians, nurses, patients and pharmacy and therapeutics committees, or P&T Committees, we may not generate sufficient revenue and we may not become or remain profitable.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may be unable to generate any revenue.*

In order to commercialize any products that may be approved in the United States, including ARX-04 and Zalviso, we must build our internal sales, marketing, distribution, managerial and other capabilities or make arrangements with third parties to perform these services. In addition, we plan to enter into agreements with third parties for the distribution of approved product candidates, including ARX-04 and Zalviso; however, if there are delays in establishing such relationships or those third parties do not perform as expected, our ability to effectively distribute products would suffer.

As a result of delays in the resubmission of the Zalviso NDA and obtaining FDA approval, our Board of Directors implemented a cost reduction plan that reduced our workforce by 19 employees, approximately 36% of total headcount, in the first quarter of 2015. As a result, the build out of our commercial capabilities, including internal sales, marketing, supply chain and medical affairs departments is currently on hold. This delay in recruiting and hiring the appropriate individuals could adversely affect the potential success of any future approved product candidates, including ARX-04 and Zalviso in the United States.

We have entered into a collaboration with Grünenthal for the commercialization of Zalviso in Europe and Australia and intend to enter into additional strategic partnerships with third parties to commercialize our product candidates outside of the United States. We may also consider the option to enter into strategic partnerships for our product candidates in the United States. We face significant competition in seeking appropriate strategic partners, and these strategic partnerships can be intricate and time consuming to negotiate and document.

We may not be able to negotiate future strategic partnerships on acceptable terms, or at all. We are unable to predict when, if ever, we will enter into any strategic partnerships because of the numerous risks and uncertainties associated with establishing strategic partnerships. Our current or future collaboration partners, if any, may not dedicate sufficient resources to the commercialization of Zalviso or our other product candidates, if approved, or may otherwise fail in their commercialization due to factors beyond our control. If we are unable to establish effective collaborations to enable the sale of our product candidates, if approved, to healthcare professionals and in geographical regions, including the United States, that will not be covered by our own marketing and sales force, or if our potential future collaboration partners do not successfully commercialize our product candidates, if approved, our ability to generate revenues from product sales will be adversely affected.

If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate sufficient product revenue and may not become profitable. We will be competing with many companies that currently have extensive and well-funded marketing and sales operations. Without an internal team or the support of a third party to perform marketing and sales functions, we may be unable to compete successfully against these more established companies.

A key part of our business strategy is to establish collaborative relationships to commercialize and fund development and approval of our product candidates, particularly outside of the United States. We may not succeed in establishing and maintaining collaborative relationships, which may significantly limit our ability to develop and commercialize our products successfully, if at all.

We will need to establish and maintain successful collaborative relationships to obtain international sales, marketing and distribution capabilities for our product candidates. The process of establishing and maintaining collaborative relationships is difficult, time-consuming and involves significant uncertainty, including:

- our partners may seek to renegotiate or terminate their relationships with us due to unsatisfactory clinical or regulatory results, manufacturing issues, a change in business strategy, a change of control or other reasons;
- our contracts for collaborative arrangements are terminable at will on written notice and may otherwise expire or terminate and we may not have alternatives available to achieve the potential for our products in those territories or markets;
- our partners may choose to pursue alternative technologies, including those of our competitors;
- we may have disputes with a partner that could lead to litigation or arbitration;
- we have limited control over the decisions of our partners and they may change the priority of our programs in a manner that would result in termination of the agreement or add significant delays to the partnered program;
- our ability to generate future payments and royalties from our partners depends upon the abilities of our partners to establish the safety and efficacy of our drug candidates, obtain regulatory approvals and our ability to successfully manufacture and achieve market acceptance of products developed from our product candidates;
- we or our partners may fail to properly initiate, maintain or defend our intellectual property rights, where applicable, or a party may use our proprietary information in such a way as to invite litigation that could jeopardize or potentially invalidate our proprietary information or expose us to potential liability;
- our partners may not devote sufficient capital or resources towards our product candidates; and
- our partners may not comply with applicable government regulatory requirements necessary to successfully market and sell our products.

If any collaborator fails to fulfill its responsibilities in a timely manner, or at all, any research, clinical development, manufacturing or commercialization efforts pursuant to that collaboration could be delayed or terminated, or it may be necessary for us to assume responsibility for expenses or activities that would otherwise have been the responsibility of our collaborator. If we are unable to establish and maintain collaborative relationships on acceptable terms or to successfully and timely transition terminated collaborative agreements, we may have to delay or discontinue further development of one or more of our product candidates, undertake development and commercialization activities at our own expense or find alternative sources of capital.

Approval of Zalviso in the EU, and any future approvals of our product candidates outside of the United States, will result in a variety of risks associated with international operations and could materially adversely affect our business.*

Our existing collaboration with Grünenthal for marketing Zalviso in European countries and Australia requires us to supply product to support the EU commercialization of Zalviso. In addition, if any of our currently unapproved product candidates are approved for commercialization outside the United States, we intend to enter into agreements with third parties to market our product candidates in those countries, which may also require us to supply products to the third party. We may be subject to additional risks related to entering into international business relationships, including:

- different regulatory requirements for drug approvals in foreign countries;
- reduced protection for intellectual property rights;
- unexpected changes in tariffs, trade barriers and regulatory requirements;

- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenues, and other obligations incident to doing business in another country;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

If we, or current and potential partners, are unable to compete effectively, our product candidates may not reach their commercial potential.*

The U.S. market for ARX-04, Zalviso, and our other product candidates is characterized by intense competition and cost pressure. If our product candidates obtain FDA approval, they will compete with a number of existing and future pharmaceuticals and drug delivery devices developed, manufactured and marketed by others. We or our current and potential partners will compete against fully integrated pharmaceutical companies and smaller companies that are collaborating with larger pharmaceutical companies.

There are a wide variety of approved injectable and oral opioid products to treat moderate-to-severe acute pain, including IV opioids such as morphine, fentanyl, hydromorphone and meperidine or oral opioids such as oxycodone and hydrocodone. More specifically, competitors for ARX-04 in the emergency department are likely to include generic injectable intravenous opioids such as morphine, hydromorphone and fentanyl. In this environment, ARX-04 may also compete with other branded non-invasive products such as Egalet's Sprix, Hospira's Dyloject, Pfizer's Oxecta, Depomed's Nucynta, BMS's Combunox, Purdue's Oxyfast, Endo's Opana, or generic oral opioids which have moderate-to-severe acute pain labeling. In the short-stay or ambulatory surgery segment, ARX-04 will likely compete with these products in addition to generic injectable local anesthetics such as bupivacaine, or branded formulations thereof, including Pacira's Exparel. Within the military environment, and in certain civilian settings, ARX-04 competitors may also include intramuscular morphine injections which are marketed by a variety of generic manufacturers.

We believe that Zalviso would compete with a number of opioid-based and non-opioid based treatment options that are currently available, as well as some products that are in development. The hospital market for opioids for moderate-to-severe acute pain is large and competitive. The primary competition for Zalviso is the IV PCA pump, which is widely used in the moderate-to-severe acute pain in the hospital setting. Leading manufacturers of IV PCA pumps include Hospira Inc. (acquired by Pfizer), CareFusion Corporation (purchased by Becton Dickinson & Co.), Baxter International Inc., Curlin Medical, Inc. and Smiths Medical. The most common opioids used to treat moderate-to-severe acute pain are morphine, hydromorphone and fentanyl, all of which are available as generics both from generic product manufacturers as well as from compounding pharmacies. In addition, branded manufacturers (e.g., Hospira, Inc.) sell pre-filled glass syringes of morphine to fit their IV PCA pump systems.

Also available on the market is the Avancen Medication on Demand, or MOD, Oral PCA Device developed by Avancen MOD Corporation. Oral opioids and other agents can be used in this system. In addition, oral and parenteral opioids administered by the nurse are used to manage moderate-to-severe acute pain in the hospital, available both as branded and generic products. These oral opioids, as well as IV PCA opioids, are often used as part of a multi-modal analgesia approach, which might include, in addition to the opioid, NSAIDs, acetaminophen, gabapentanoids and other pain management modalities, as well as local anesthetic blocks to provide temporary blockage of the pain signal, either as a wound infiltration agent or as a nerve block. These local anesthetic agents such as bupivacaine can also utilize controlled-release formulations such as Pacira's Exparel. In addition, Halyard Health, Inc. has developed a medical device, the ON-Q* Pain Relief System, which is a non-narcotic elastomeric pump that automatically and continuously delivers a regulated flow of local anesthetic to a patient's surgical site or in close proximity to nerves, providing targeted pain relief for up to five days. Additional potential competitors for Zalviso include the fentanyl iontophoretic transdermal system, Ionsys, originally developed by Alza Corporation and Ortho-McNeil Pharmaceutical, Inc., both Johnson & Johnson subsidiaries, and most recently by The Medicines Company. On April 30, 2015, Ionsys was approved for marketing in the U.S. by the FDA, providing a potential first-to-market advantage for Ionsys. Cara Therapeutics is developing a kappa opioid agonist, CR845, as an IV agent for the management of post-operative moderate-to-severe pain. Trevena is developing TRV130, an intravenous G protein biased ligand that targets the mu opioid receptor for the treatment of moderate-to-severe acute pain where intravenous therapy is preferred, with a clinical development focus in acute postoperative pain. Trevena expects to initiate Phase 3 development of TRV130 in the first quarter of 2016. Recro Pharma is developing an intranasal form of dexmedetomidine as a potential agent for the management of post-operative pain, for which it announced positive efficacy results in its Phase II clinical trial. Finally, Innocoll is developing Xaracoll a controlled-release resorbable implant containing bupivacaine, and Durect has been developing Posidur, a controlled-release bupivacaine product candidate utilizing Durect's Saber technology.

It is possible that any of these competitors could develop or improve technologies or products that would render our product candidates obsolete or non-competitive, which could adversely affect our revenue potential. Key competitive factors affecting the commercial success of our product candidates are likely to be efficacy, safety profile, reliability, convenience of dosing, price and reimbursement.

Our potential competitors for ARX-02 include products approved in the United States for cancer breakthrough pain, including: Actiq and Fentora, currently manufactured by Teva Pharmaceuticals; Onsolis, currently manufactured by BioDelivery Sciences International, Inc.; Abstral, currently manufactured by ProStrakan Group plc; Lazanda, currently manufactured by Depomed, Inc.; Subsys, currently manufactured by Insys Therapeutics, Inc., as well as products approved in Europe, including Instanyl, currently manufactured by Takeda Pharmaceuticals International GmbH. The active ingredient in all approved products for cancer breakthrough pain is fentanyl. Additional potential competitors for ARX-02 include products in late stage development for cancer breakthrough pain, such as: Fentanyl Taifun, currently manufactured by Akela Pharma, Inc.

We are not aware of any approved or development stage non-IV sedative/analgesic products that would present competition to ARX-03. In the future, there may be products developed or approved for this market which could directly compete with ARX-03.

Many of our potential competitors have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of drug candidates, obtaining FDA and other regulatory approval of products and the commercialization of those products. Accordingly, our competitors may be more successful than we are in obtaining FDA approval for drugs and achieving widespread market acceptance. Our competitors' drugs or drug delivery systems may be more effective, have fewer adverse effects, be less expensive to develop and manufacture, or be more effectively marketed and sold than any product candidate we may commercialize. This may render our product candidates obsolete or non-competitive before we can recover our losses. We anticipate that we will face intense and increasing competition as new drugs enter the market and additional technologies become available. These entities may also establish collaborative or licensing relationships with our competitors, which may adversely affect our competitive position. Finally, the development of different methods for the treatment of moderate-to-severe acute pain (ARX-04 and Zalviso) or breakthrough pain (ARX-02) could render our products non-competitive or obsolete. These and other risks may materially adversely affect our ability to attain or sustain profitable operations.

Hospital formulary approval may not be available, or could be subject to certain restrictions for ARX-04 or Zalviso in the United States and our other product candidates, which could make it difficult for us to sell our products profitably.*

Obtaining formulary approval can be an expensive and time-consuming process. We cannot be certain if and when we will obtain formulary approval to allow us to sell our products into our target markets. Failure to obtain timely formulary approval will limit our commercial success. If we are successful in obtaining formulary approval, we may need to complete evaluation programs whereby ARX-04 or Zalviso is used on a limited basis for certain patient types. Hospitals may seek to obtain ARX-04 or Zalviso devices at little or no cost during this evaluation period. Revenue generated from these hospitals during the evaluation period would be minimal. The evaluation period may last several months and there can be no assurance that use during the evaluation period will lead to formulary approval of ARX-04 or Zalviso. Further, even successful formulary approval may be subject to certain restrictions based on patient type or hospital protocol. Failure to obtain timely formulary approval for ARX-04 and/or Zalviso would materially adversely affect our ability to attain or sustain profitable operations.

Coverage and adequate reimbursement may not be available for ARX-04, Zalviso and our other product candidates, if approved in the United States, which could make it difficult for us, or our partners, to sell our products profitably.*

Our ability to commercialize ARX-04, Zalviso, or any of our other drug candidates, if approved in the United States, successfully will depend, in part, on the extent to which coverage and adequate reimbursement will be available from government payor programs at the federal and state levels authorities, including Medicare and Medicaid, private health insurers, managed care plans and other third-party payors.

No uniform policy requirement for coverage and reimbursement for drug products exists among third-party payors in the United States. Therefore, coverage and reimbursement can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Our inability to promptly obtain coverage and adequate reimbursement rates from third party payors could significantly harm our operating results, our ability to raise capital needed to commercialize any future approved drugs and our overall financial condition.

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medical products. There have been a number of legislative and regulatory proposals to change the healthcare system in the United States and in some foreign jurisdictions that could affect our ability to sell our products profitably. These legislative and/or regulatory changes may negatively impact the reimbursement for our products, following approval. The availability of numerous generic pain medications may also substantially reduce the likelihood of reimbursement for ARX-04, Zalviso or any of our other product candidates, if approved. The application of user fees to generic drug products may expedite the approval of additional pain medication generic drugs. We expect to experience pricing pressures in connection with the sale of ARX-04, Zalviso and any of our other product candidates, if approved, due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. If we fail to successfully secure and maintain reimbursement coverage for our products or are significantly delayed in doing so, we will have difficulty achieving market acceptance of our products and our business will be harmed.

Furthermore, market acceptance and sales of our product candidates, if approved, will depend on reimbursement policies and may be affected by future healthcare reform measures. Government authorities and third party payors, such as private health insurers, hospitals and health maintenance organizations, decide which drugs they will pay for and establish reimbursement levels. We cannot be sure that reimbursement will be available for ARX-04, Zalviso, or any of our other product candidates, if approved in the United States. Also, reimbursement amounts may reduce the demand for, or the price of, our products. If reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize ARX-04, Zalviso, or any of our other product candidates, if approved in the United States.

Additionally, the regulations that govern marketing approvals, pricing, coverage and reimbursement for new drugs vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a product before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues able to be generated from the sale of the product in that country. For example, although in September 2015 the European Commission approved the MAA for Grünenthal to market Zalviso in the 28 European Union member states as well as for the European Economic Area countries, Norway, Iceland and Liechtenstein, separate pricing and reimbursement approvals may delay or prevent their ability to successfully launch Zalviso. Adverse pricing limitations may hinder our ability to recoup our investment in ARX-04, Zalviso and/or our other drug candidates, even if/when those drug candidates obtain marketing approval.

Furthermore, even after initial price and reimbursement approvals, reductions in prices and changes in reimbursement levels can be triggered by multiple factors, including reference pricing systems and publication of discounts by third party payors or authorities in other countries. In the EU, prices can be reduced further by parallel distribution and parallel trade, or arbitrage between low-priced and high-priced countries. If any of these events occur, Zalviso, ARX-04 and/or our other drug candidates would be negatively affected.

The FDA and other regulatory agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses.*

If we are found to have improperly promoted off-label uses of our product candidates, including ARX-04 and/or Zalviso, if approved in the United States, we may become subject to significant liability. Such enforcement has become more common in the industry. The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about prescription drug products. In particular, a product may not be promoted for uses that are not approved by the FDA or such other regulatory agencies as reflected in the product's approved labeling. If we receive marketing approval for our product candidates for our proposed indications, physicians may nevertheless use our products for their patients in a manner that is inconsistent with the approved label, if the physicians personally believe in their professional medical judgment it could be used in such manner. However, if the FDA determines that our promotional materials or training constitutes promotion of an off-label use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine or criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an off-label use, which could result in significant civil, criminal and/or administrative penalties, damages, fines, disgorgement, individual imprisonment, exclusion from government-funded healthcare programs, such as Medicare and Medicaid, contractual damages, reputational harm, increased losses and diminished profits and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our financial results. The FDA or other regulatory authorities could also request that we enter into a consent decree or a corporate integrity agreement, or seek a permanent injunction against us under which specified promotional conduct is monitored, changed or curtailed. If we cannot successfully manage the promotion of our product candidates, including ARX-04 and Zalviso in the United States, if approved, we could become subject to significant liability, which would materially adversely affect our business and financial condition.

Guidelines and recommendations published by government agencies can reduce the use of our product candidates, including ARX-04 and Zalviso, if/when approved.*

Government agencies promulgate regulations and guidelines applicable to certain drug classes which may include the product candidates that we are developing. Recommendations of government agencies may relate to such matters as usage, dosage, route of administration and use of concomitant therapies. Regulations or guidelines suggesting the reduced use of certain drug classes which may include the product candidates that we are developing or the use of competitive or alternative products as the standard of care to be followed by patients and healthcare providers could result in decreased use of our product candidates, or negatively impact our ability to gain market acceptance and market share.

If we are unable to establish relationships with group purchasing organizations any future revenues or future profitability could be jeopardized.*

Many end-users of pharmaceutical products have relationships with group purchasing organizations, or GPOs, whereby such GPOs provide such end-users access to a broad range of pharmaceutical products from multiple suppliers at competitive prices and, in certain cases, exercise considerable influence over the drug purchasing decisions of such end-users. Hospitals and other end-users contract with the GPO of their choice for their purchasing needs. We expect to derive revenue from end-user customers that are members of GPOs, if ARX-04 or Zalviso is approved by the FDA. Establishing and maintaining strong relationships with these GPOs will require us to be a reliable supplier, remain price competitive and comply with FDA regulations. The GPOs with whom we have relationships may have relationships with manufacturers that sell competing products, and such GPOs may earn higher margins from these products or combinations of competing products or may prefer products other than ours for other reasons. If we are unable to establish or maintain our GPO relationships, sales of our products and revenue could be negatively impacted.

We intend to rely on a limited number of pharmaceutical wholesalers to distribute our product candidates, including ARX-04 and Zalviso in the United States, if approved.*

We intend to rely primarily upon pharmaceutical wholesalers in connection with the distribution of our product candidates, including ARX-04 and Zalviso in the United States, if approved. If we are unable to establish or maintain our business relationships with these pharmaceutical wholesalers on commercially acceptable terms, it could have a material adverse effect on our sales and may prevent us from achieving profitability.

Risks Related to Our Business Operations and Industry

Failure to receive required quotas of controlled substances or comply with the Drug Enforcement Administration regulations, or the cost of compliance with these regulations, may adversely affect our business.*

Our sufentanil-based products are subject to extensive regulation by the DEA, due to their status as scheduled drugs. Sufentanil is a Schedule II opioid, considered to present a high risk of abuse. The manufacture, shipment, storage, sale and use of controlled substances are subject to a high degree of regulation, including security, record-keeping and reporting obligations enforced by the DEA and also by comparable state agencies. This high degree of regulation can result in significant costs in order to comply with the required regulations, which may have an adverse effect on the development and commercialization of our product candidates.

The DEA limits the availability and production of all Schedule II substances, including sufentanil, through a quota system. The DEA requires substantial evidence and documentation of expected legitimate medical and scientific needs before assigning quotas to manufacturers. Our contract manufacturers have applied annually for a quota on our behalf. We will need significantly greater amounts of sufentanil to implement our commercialization plans for Zalviso in the EU, and any of our products that may be approved by the FDA in the future, including ARX-04 and Zalviso. Any delay or refusal by the DEA in establishing the procurement quota or a reduction in our quota for sufentanil or a failure to increase it over time to meet anticipated increases in demand could delay or stop the clinical development of any of our product candidates or the commercial sale of any approved products. This, in turn, could have a material adverse effect on our business, results of operations, financial condition and prospects.

Our relationships with investigators, health care professionals, consultants, commercial partners, third-party payors, hospitals, and other customers are subject to applicable anti-kickback, fraud and abuse and other healthcare laws, which could expose us to penalties.*

Healthcare providers, physicians and others play a primary role in the recommendation and prescribing of any products for which we may obtain marketing approval. Our business operations and arrangements with investigators, healthcare professionals, consultants, commercial partners, hospitals, third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws. These laws may constrain the business or financial arrangements and relationships through which we research, market, sell and distribute the products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws, include, but are not limited to, the following:

- the federal healthcare Anti-Kickback Statute prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or paying any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service, for which payment may be made, in whole or in part, under federal healthcare programs such as Medicare and Medicaid;

- the federal civil and criminal false claims laws and civil monetary penalties, including civil whistleblower or qui tam actions, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, to the federal government, claims for payment or approval that are false or fraudulent or from knowingly making a false statement to improperly avoid, decrease or conceal an obligation to pay money to the federal government;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which, among other things, imposes criminal liability for knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or to obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly or willfully falsifying, concealing, or covering up by any trick or device a material fact or making any materially false statement in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their implementing regulations, impose certain obligations, including mandatory contractual terms, on covered healthcare providers, health plans and clearinghouses, as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

- the federal transparency law, enacted as part of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (collectively, the Health Care Reform Law), and its implementing regulations, requires certain manufacturers of drugs, devices, biologicals and medical supplies to report to the U.S. Department of Health and Human Services information related to payments and other transfers of value provided to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;

- analogous state laws that may apply to our business practices, including but not limited to, state laws that require pharmaceutical companies to implement compliance programs and/or comply with the pharmaceutical industry's voluntary compliance guidelines; state laws that impose restrictions on pharmaceutical companies' marketing practices and require manufacturers to track and file reports relating to pricing and marketing information, which requires tracking and reporting gifts, compensation and other remuneration and items of value provided to healthcare professionals and entities; and

- the federal Foreign Corrupt Practices Act of 1977 and other similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from providing money or anything of value to officials of foreign governments, foreign political parties, or international organizations with the intent to obtain or retain business or seek a business advantage. Recently, there has been a substantial increase in anti-bribery law enforcement activity by U.S. regulators, with more frequent and aggressive investigations and enforcement proceedings by both the Department of Justice and the U.S. Securities and Exchange Commission. A determination that our operations or activities are not, or were not, in compliance with United States or foreign laws or regulations could result in the imposition of substantial fines, interruptions of business, loss of supplier, vendor or other third-party relationships, termination of necessary licenses and permits, and other legal or equitable sanctions. Other internal or government investigations or legal or regulatory proceedings, including lawsuits brought by private litigants, may also follow as a consequence.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations, agency guidance or case law involving applicable fraud and abuse or other healthcare laws. If our operations are found to be in violation of any of these or any other healthcare regulatory laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, disgorgement, individual imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, contractual damages, reputational harm, increased losses and diminished profits and the curtailment or restructuring of our operations any of which could adversely affect our ability to operate our business and our financial results. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses or divert our management's attention from the operation of our business.

Business interruptions could delay us in the process of developing our products and could disrupt our sales.

Our headquarters is located in the San Francisco Bay Area, near known earthquake fault zones and is vulnerable to significant damage from earthquakes. We are also vulnerable to other types of natural disasters and other events that could disrupt our operations. We do not carry insurance for earthquakes or other natural disasters and we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our business operations.

Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel.*

We are highly dependent on principal members of our executive team, the loss of whose services may adversely impact the achievement of our objectives. While we have entered into offer letters with each of our executive officers, any of them could leave our employment at any time, as all of our employees are "at will" employees. Recruiting and retaining other qualified employees for our business, including scientific and technical personnel, will also be critical to our success. There is currently a shortage of skilled executives in our industry, which is likely to continue. As a result, competition for skilled personnel is intense and the turnover rate can be high. We may not be able to attract and retain personnel on acceptable terms given the competition among numerous pharmaceutical companies for individuals with similar skill sets. In addition, failure to succeed in clinical trials, or delays in the regulatory approval process, may make it more challenging to recruit and retain qualified personnel. The inability to recruit or loss of the services of any executive or key employee might impede the progress of our research, development and commercialization objectives. On November 5, 2014, we announced that the Board of Directors has initiated a search to replace Richard King, our President and Chief Executive Officer. On March 31, 2015, Mr. King's employment with AcelRx terminated. On March 19, 2015, the Board of Directors of AcelRx appointed Howard B. Rosen, a member of AcelRx's Board of Directors, as interim Chief Executive Officer effective April 1, 2015. While Mr. Rosen has agreed to serve as our Chief Executive Officer and principal executive officer on an interim basis, there can be no assurance that a permanent replacement will be found on a timely basis, or at all. Our inability to find a suitable permanent replacement may have a detrimental impact on the organization and impede the progress of our research, development and commercialization objectives, as well as our ability to raise additional capital as needed.

In the future, we will need to expand our organization, and we may experience difficulties in managing this growth, which could disrupt our operations.*

As of September 30, 2015, we had 32 full-time employees. On March 19, 2015, our Board of Directors, in connection with our efforts to reduce operating costs, conserve capital, focus the Company's financial and development resources on working with the FDA to seek marketing approval for Zalviso, and continuing development of ARX-04, implemented a cost reduction plan. The cost reduction plan reduced our workforce by 19 employees, approximately 36% of total headcount, in the first quarter of 2015. As our product candidates mature and approach potential commercialization in the United States, we plan to expand our employee base to increase our managerial, sales, marketing, operational, quality, engineering, financial and other resources and to hire more consultants and contractors. Future growth will impose significant additional responsibilities on our management, including the need to identify, recruit, maintain, motivate and integrate additional employees, consultants and contractors. Also, our management may need to divert a disproportionate amount of its attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of additional product candidates. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate and/or grow revenues could be reduced, and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize ARX-04, Zalviso and our other product candidates and compete effectively will depend, in part, on our ability to effectively manage any future growth.

We face potential product liability, and, if successful claims are brought against us, we may incur substantial liability.*

The use of our product candidates in clinical trials and the sale of any products for which we obtain marketing approval exposes us to the risk of product liability claims. Product liability claims might be brought against us by consumers, health care providers, pharmaceutical companies or others selling or otherwise coming into contact with our products. If we cannot successfully defend against product liability claims, we could incur substantial liability and costs. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- impairment of our business reputation;

- withdrawal of clinical trial participants;
- costs due to related litigation;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- the inability to commercialize our product candidates; and
- decreased demand for our product candidates, if approved for commercial sale.

Our current product liability insurance coverage may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and in the future we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. If and when we obtain marketing approval for our product candidates, we intend to expand our insurance coverage to include the sale of commercial products; however, we may be unable to obtain product liability insurance on commercially reasonable terms or in adequate amounts. For example, with the recent approval of Zalviso in the EU, we are currently in the process of reviewing our insurance coverage and expanding it to include the sale of commercial product to our commercial partner, Grünenthal. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated adverse effects. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations
and business.

Our employees, independent contractors, principal investigators, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk that our employees, independent contractors, investigators, consultants, commercial partners and vendors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct that violates (1) the laws of the FDA and similar foreign regulatory bodies, including those laws requiring the reporting of true, complete and accurate information to such regulatory bodies; (2) healthcare fraud and abuse laws of the United States and similar foreign fraudulent misconduct laws; and (3) laws requiring the reporting of financial information or data accurately. Specifically, the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry are subject to extensive laws designed to prevent misconduct, including fraud, kickbacks, self-dealing and other abusive practices. These laws may restrict or prohibit a wide range of pricing, discounting, marketing, structuring and commission(s), certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical trials. It is not always possible to identify and deter employee and other third-party misconduct. The precautions we take to detect and prevent inappropriate conduct may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws. If any such actions are instituted against us, and we are not successful in defending ourselves, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, disgorgement, individual imprisonment, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Risks Related to Our Intellectual Property

If we cannot defend our issued patents from third party claims or if our pending patent applications fail to issue, our business could be adversely affected.*

To protect our proprietary technology, we rely on patents as well as other intellectual property protections including trade secrets, nondisclosure agreements, and confidentiality provisions. As of September 30, 2015, we are the owner of record of 41 issued patents worldwide. These issued patents cover AcelRx's sufentanil sublingual tablet, medication delivery devices, packaging and other platform technology. These issued patents are expected to provide coverage through 2027 – 2031.

In addition, we are pursuing a number of U.S. non-provisional patent applications and foreign national applications directed to our product candidates. The patent applications that we have filed and have not yet been granted may fail to result in issued patents in the United States or in foreign countries. Even if the patents do successfully issue, third parties may challenge the patents.

Our commercial success will depend in part on successfully defending our current patents against third party challenges and expanding our existing patent portfolio to provide additional layers of patent protection, as well as extending patent protection. There can be no assurance that we will be successful in defending our existing and future patents against third party challenges, or that our pending patent applications will result in additional issued patents.

The patent positions of pharmaceutical companies, including us, can be highly uncertain and involve complex and evolving legal and factual questions. No consistent policy regarding the breadth of claims allowed in pharmaceutical patents has emerged to date in the United States. Legal developments may preclude or limit the scope of available patent protection.

There is also no assurance that any patents issued to us will not become the subject of adversarial proceedings such as opposition, inter partes review, post-grant review, reissue, supplemental examination, re-examination or other post-issuance proceedings. There is also no assurance that the respective court or agency in such adversarial proceedings would not make unfavorable decisions, such as reducing the scope of a patent of ours, or determining that a patent of ours is invalid or unenforceable. There is also no assurance that any patents issued to us will provide us with competitive advantages, will not be challenged by any third parties, or that the patents of others will not prevent the commercialization of products incorporating our technology. Furthermore, there can be no guarantee that others will not independently develop similar products, duplicate any of our products, or design around our patents.

Litigation involving patents, patent applications and other proprietary rights is expensive and time consuming. If we are involved in such litigation, it could cause delays in bringing our product candidates or approved products to market and interfere with our business.*

Our commercial success depends in part on not infringing patents and proprietary rights of third parties. Although we are not currently aware of litigation or other proceedings or third party claims of intellectual property infringement related to our product candidates, the pharmaceutical industry is characterized by extensive litigation regarding patents and other intellectual property rights.

As we enter our target markets, it is possible that competitors or other third parties will claim that our products and/or processes infringe their intellectual property rights. These third parties may have obtained and may in the future obtain patents covering products or processes that are similar to, or may include compositions or methods that encompass our technology, allowing them to claim that the use of our technologies infringes these patents.

In a patent infringement claim against us, we may assert, as a defense, that we do not infringe the relevant patent claims, that the patent is invalid or both. The strength of our defenses will depend on the patents asserted, the interpretation of these patents, and our ability to invalidate the asserted patents. However, we could be unsuccessful in advancing non-infringement and/or invalidity arguments in our defense. In the United States, issued patents enjoy a presumption of validity, and the party challenging the validity of a patent claim must present clear and convincing evidence of invalidity, which is a high burden of proof. Conversely, the patent owner need only prove infringement by a preponderance of the evidence, which is a lower burden of proof.

If we were found by a court to have infringed a valid patent claim, we could be prevented from using the patented technology and/or be required to pay the owner of the patent for damages for past sales and for the right to license the patented technology for future sales. If we decide to pursue a license to one or more of these patents, we may not be able to obtain a license on commercially reasonable terms, if at all, or the license we obtain may require us to pay substantial royalties or grant cross licenses to our patent rights. For example, if the relevant patent is owned by a competitor, that competitor may choose not to license patent rights to us. If we decide to develop alternative technology, we may not be able to do so in a timely or cost-effective manner, if at all.

In addition, because patent applications can take years to issue and are often afforded confidentiality for some period of time there may currently be pending applications, unknown to us, that later result in issued patents that could cover one or more of our products.

It is possible that we may in the future receive, particularly as a public company, communications from competitors and other companies alleging that we may be infringing their patents, trade secrets or other intellectual property rights, offering licenses to such intellectual property or threatening litigation. In addition to patent infringement claims, third parties may assert copyright, trademark or other proprietary rights against us. We may need to expend considerable resources to counter such claims and may not be able to successful in our defense. Our business may suffer if a finding of infringement is established.

It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection.*

The patent positions of pharmaceutical companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in pharmaceutical patents has emerged to date in the United States. The pharmaceutical patent situation outside the United States is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. For example, 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 will be prosecuted and may also affect patent litigation. The United States Patent and Trademark Office has developed new regulations and procedures to govern the full implementation 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, that became effective March 16, 2013. It is too early to tell 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.

Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in the patents that may be issued from the applications we currently or may in the future own or license from third parties. Claims could be brought regarding the validity of our patents by third parties and regulatory agencies. Further, if any patent license we obtain is deemed invalid and/or unenforceable, it could impact our ability to commercialize or partner our technology.

Competitors or third parties may infringe our patents. We may decide it is necessary to file patent infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid or is unenforceable, or that the third party's technology does not in fact infringe upon our patents. An adverse determination of any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our related pending patent applications at risk of not issuing. Litigation may fail and, even if successful, may result in substantial costs and be a distraction to our management. We may not be able to prevent misappropriation of our proprietary rights, particularly in countries outside the United States where patent rights may be more difficult to enforce. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential or sensitive information could be compromised by disclosure in the event of litigation. In addition, during the course of litigation there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- we were the first to make the inventions covered by each of our pending patent applications or issued patents;
- our patent applications were filed before the inventions covered by each patent or patent application was published by a third party;
- we were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- any patents issued to us or our collaborators will provide a basis for commercially viable products, will provide us with any competitive advantages or will not be challenged by third parties; or
- the patents of others will not have an adverse effect on our business.

If we do not adequately protect our proprietary rights, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could materially harm our business, negatively affect our position in the marketplace, limit our ability to commercialize our products and product candidates, and delay or render impossible our achievement of profitability.

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

We rely on trade secrets to protect our proprietary know-how and technological advances, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights. Failure to obtain or maintain trade secret protection could enable competitors to use our proprietary information to develop products that compete with our products or cause additional, material adverse effects upon our competitive business position.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and applications will be due to be paid to the United States Patent and Trademark Office and various foreign governmental patent agencies in several stages over the lifetime of the patents and/or applications.

We have systems in place, including use of third party vendors, to manage payment of periodic maintenance fees, renewal fees, annuity fees and various other patent and application fees. The United States Patent and Trademark Office, or the USPTO, and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. There are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If this occurs, our competitors might be able to enter the market, which would have a material adverse effect on our business.

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

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property protection, especially those relating to life sciences. This could make it difficult for us to stop the infringement of our patents or the misappropriation of our other intellectual property rights. For example, many foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, many countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit.

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. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate. Additionally, claims may be brought regarding the validity of our patents by third parties and regulatory agencies in the United States and foreign countries. In addition, changes in the law and legal decisions by courts in the United States and foreign countries may affect our ability to obtain adequate protection for our technology and the enforcement of intellectual property.

We have not yet registered our trademarks in all of our potential markets, and failure to secure those registrations could adversely affect our business.

We have registered our ACELRX mark in the United States, Canada, the European Union and India. We have also registered the mark ACCELERATE. INNOVATE. ALLEVIATE. in the United States. We have additionally applied for registration of our ZALVISO mark in the United States on an intent-to-use basis and that application has been allowed. In early 2014, the FDA accepted the ZALVISO mark as part of the NDA review process. Although we are not currently aware of any oppositions to or cancellations of our registered trademarks or pending applications, it is possible that one or more of the applications could be subject to opposition or cancellation after the marks are registered. The registrations will be subject to use and maintenance requirements. It is also possible that we have not yet registered all of our trademarks in all of our potential markets, and that there are names or symbols other than "ACELRX" that may be protectable marks for which we have not sought registration, and failure to secure those registrations could adversely affect our business. Opposition or cancellation proceedings may be filed against our trademarks and our trademarks may not survive such proceedings.

Risks Related to Ownership of Our Common Stock

The market price of our common stock may be highly volatile.*

Since our initial public offering, or IPO, in February 2011, the trading price of our common stock has experienced significant volatility and is likely to be volatile in the future. For example, our stock price declined by more than 40% on July 28, 2014, the first trading day following the announcement of the receipt of the CRL from the FDA. In addition, our stock price dropped by 37% on March 9, 2015, the day we announced the correspondence we received from the FDA requesting a clinical trial to assess the risk of inadvertent dispensing and overall risk of dispensing failures for Zalviso. Our stock price could be subject to wide fluctuations in response to a variety of factors, including the following:

- any delay in resubmitting the NDA for Zalviso, submitting an NDA for any of our other product candidates and any adverse development or perceived adverse development with respect to the FDA's review of any NDA;
- any adverse development or perceived adverse development with respect to the FDA's regulatory review of Zalviso;
- adverse results or delays in current or future clinical trials, including the Phase 3 clinical development program for ARX-04;

- inability to obtain additional funding, including funding necessary for the planned potential commercialization and manufacturing of Zalviso in the United States and advancement of clinical trials for other product candidates;
- failure to successfully develop and commercialize our product candidates;
- changes in laws or regulations applicable to our products;
- inability to obtain adequate product supply for our product candidates, or the inability to do so at acceptable prices;
- adverse regulatory decisions;
- introduction of new products, services or technologies by our competitors;
- failure to meet or exceed financial projections we provide to the public;
- failure to meet or exceed the estimates and projections of the investment community;
- the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;
- announcements of significant acquisitions, strategic partnerships, joint ventures, or other significant transactions, including disposition transactions, or capital commitments by us or our competitors;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- additions or departures of key scientific or management personnel;
- significant lawsuits, including patent or stockholder litigation;
- changes in the market valuations of similar companies;
- sales of our common stock by us or our stockholders in the future; and
- trading volume of our common stock.

In addition, the stock market in general, and The NASDAQ Global Market, or NASDAQ, in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

Historically, our common stock has thinly traded, and in the future may continue to be thinly traded, and our stockholders may be unable to sell at or near asking prices, or at all if they need to sell their shares to raise money or otherwise desire to liquidate such shares.*

Historically, we have not had a high volume of daily trades in our common stock on NASDAQ. For example, the average daily trading volume in our common stock on NASDAQ during the nine months ended September 30, 2015 and 2014 was approximately 600,000 and 800,000 shares per day, respectively. A more active market for our stock has only recently developed and may not be sustained. Our stockholders may be unable to sell their common stock at or near their asking prices, which may result in substantial losses to our investors.

The market for our common stock may be characterized by significant price volatility when compared to seasoned issuers, and we expect that our share price will be more volatile than a seasoned issuer for the indefinite future. As noted above, our common stock may be sporadically and/or thinly traded. As a consequence of this lack of liquidity, the trading of relatively small quantities of shares by our stockholders may disproportionately influence the price of those shares in either direction. The price for our shares could, for example, decline significantly in the event that a large number of our common stock are sold on the market without commensurate demand, as compared to a seasoned issuer that could better absorb those sales without adverse impact on its share price.

Our principal stockholders and management own a significant percentage of our stock and are able to exert significant control over matters subject to stockholder approval.

Our executive officers and directors, together with the stockholders with whom our executive officers and directors are affiliated or associated, beneficially own a significant percentage of our voting stock. Therefore, these stockholders have the ability to influence us through this ownership position. These stockholders are able to determine all matters requiring stockholder approval. For example, these stockholders, acting together, are able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may believe are in your best interest as one of our stockholders.

We incur significant increased costs as a result of operating as a public company, and our management is required to devote substantial time to new compliance initiatives.

As a public company, we incur significant legal, accounting and other expenses. In addition, the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, or Dodd-Frank Act, as well as the information and reporting requirements of the Exchange Act and other federal securities laws, and rules subsequently implemented by the SEC and NASDAQ, have imposed various requirements on public companies. The costs of compliance with the Sarbanes-Oxley Act and of preparing and filing annual and quarterly reports, proxy statements and other information with the SEC, the Dodd-Frank Act, and regulations promulgated under these statutes, are significant. Our management and other personnel need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly. For example, these rules and regulations make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain our current levels of such coverage.

As a public company, we are subject to the requirements of Section 404 of the Sarbanes-Oxley Act. If we are unable to comply with Section 404 in a timely manner, it may affect the reliability of our internal control over financial reporting. Assessing our staffing and training procedures to improve our internal control over financial reporting is an ongoing process.

We have been and will continue to be involved in a substantial effort to implement appropriate processes, document the system of internal control over key processes, assess their design, remediate any deficiencies identified and test their operation. If we fail to comply with the requirements of Section 404, it may affect the reliability of our internal control over financial reporting and negatively impact the quality of disclosure to our stockholders. If we or our independent registered public accounting firm identify and report a material weakness, it could adversely affect our stock price.

Sales of a substantial number of shares of our common stock in the public market by our existing stockholders could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common stock. All of our shares of common stock outstanding are eligible for sale in the public market, subject in some cases to the volume limitations and manner of sale requirements of Rule 144 under the Securities Act. Sales of stock by our stockholders could have a material adverse effect on the trading price of our common stock.

In addition, certain holders of our securities are entitled to certain rights with respect to the registration of their shares of common stock under the Securities Act. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act. We registered for resale 3,070,000 shares of our common stock held by certain selling stockholders on a shelf registration statement that became effective on June 12, 2014. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. We may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities in more than one transaction, investors may be materially diluted by subsequent sales. These sales may also result in material dilution to our existing stockholders, and new investors could gain rights superior to our existing stockholders.

Pursuant to the 2011 Incentive Plan, our management is authorized to grant stock options and other equity-based awards to our employees, directors and consultants. The number of shares available for future grant under our 2011 Incentive Plan will automatically increase each year by 4% of all shares of our capital stock outstanding as of December 31 of the prior calendar year, subject to the ability of our board of directors to take action to reduce the size of the increase in any given year. Currently, we plan to register the increased number of shares available for issuance under our 2011 Incentive Plan each year. If our board of directors elects to increase the number of shares available for future grant by the maximum amount each year, our stockholders may experience additional dilution, which could cause our stock price to fall.

Our involvement in securities-related class action litigation could divert our resources and management's attention and harm our business.*

The stock markets have from time to time experienced significant price and volume fluctuations that have affected the market prices for the common stock of pharmaceutical companies. These broad market fluctuations may cause the market price of our common stock to decline. In addition, the market price of our common stock may vary significantly based on AcelRx specific events, such as receipt of a CRL, negative clinical results, or other negative feedback from the FDA or other regulatory agencies. In the past, securities-related class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology and biopharmaceutical companies often experience significant stock price volatility in connection with their investigational drug candidate development programs and the FDA's review of their NDAs.

On October 1, 2014, a securities class action complaint was filed in the U.S. District Court for the Northern District of California against AcelRx and certain of our current and former officers. On April 17, 2015, lead plaintiff filed an amended complaint. The amended complaint alleges that between September 30, 2013 and July 25, 2014, AcelRx and certain of our current and former officers violated Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 in connection with statements related to our lead drug candidate, Zalviso. The amended complaint seeks unspecified damages, interest, attorneys' fees, and other costs. In response, the Company filed a Motion to Dismiss on June 1, 2015. Plaintiffs' opposition was filed July 30, 2015 and the Company filed its reply brief on September 14, 2015. This lawsuit and any future related lawsuits are subject to inherent uncertainties, and the actual defense and disposition costs will depend upon many unknown factors. The outcome of such lawsuits is necessarily uncertain. Securities-related class action litigation often is expensive and diverts management's attention and our financial resources, which could adversely affect our business. Further, any negative outcome from such lawsuit could result in payments of monetary damages, or adversely affect our products, and accordingly our business, financial condition, or results of operations could be materially and adversely affected.

There can be no assurance that a favorable final outcome will be obtained in this case or any subsequent related case. Defending any lawsuit is costly and can impose a significant burden on management and employees. Any litigation to which we are a party may result in an onerous or unfavorable judgment that may not be reversed upon appeal or in payments of monetary damages not covered by insurance, or we may decide to settle lawsuits on unfavorable terms, which could adversely affect our business, financial conditions, or results of operations.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three year period, the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes (such as research tax credits) to offset its post-change income may be limited. The completion of the July 2013 public equity offering, together with our public equity offering in December 2012, our initial public offering, private placements and other transactions that have occurred, have triggered such an ownership change. In addition, since we will need to raise substantial additional funding to finance our operations, we may undergo further ownership changes in the future. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset United States federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us.

We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We have never declared or paid any cash dividends on our capital stock, and we are prohibited from doing so under the terms of our Amended Loan Agreement with Hercules. Regardless of the restrictions in our Amended Loan Agreement with Hercules or the terms of any potential future indebtedness, we anticipate that we will retain all available funds and any future earnings to support our operations and finance the growth and development of our business and, therefore, we do not expect to pay cash dividends in the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

Provisions in our amended and restated certificate of incorporation and bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us or increase the cost of acquiring us, even if doing so would benefit our stockholders or remove our current management.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders and may prevent attempts by our stockholders to replace or remove our current management. These provisions include:

- authorizing the issuance of "blank check" preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- limiting the removal of directors by the stockholders;
- a staggered board of directors;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;
- eliminating the ability of stockholders to call a special meeting of stockholders; and
- establishing advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon at stockholder meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with an interested stockholder for a period of three years following the date on which the stockholder became an interested stockholder, unless such transactions are approved by our board of directors. This provision could have the effect of delaying or preventing a change of control, whether or not it is desired by or beneficial to our stockholders. Further, other provisions of Delaware law may also discourage, delay or prevent someone from acquiring us or merging with us.

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

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Exhibit Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation of the Registrant, currently in effect.	8-K	001-35068	3.1	2/28/2011
3.2	Amended and Restated Bylaws of the Registrant, currently in effect.	S-1	333-170594	3.4	1/7/2011
4.1	Reference is made to Exhibits 3.1 through 3.2.				
4.2	Specimen Common Stock Certificate of the Registrant.	S-1	333-170594	4.2	1/31/2011
4.3	Second Amended and Restated Investors' Rights Agreement, among the Registrant and certain of its security holders, dated as of November 23, 2009.	S-1	333-170594	4.3	11/12/2010
4.4	Warrant to Purchase Common Stock of the Registrant, issued to Hercules Technology II, L.P., dated as of December 16, 2013.	10-K	001-35068	4.4	3/17/2014
4.5	Warrant to Purchase Common Stock of the Registrant, issued to Hercules Technology Growth Capital, Inc. dated as of December 16, 2013.	10-K	001-35068	4.5	3/17/2014
4.6	Form of Warrant issued to certain purchasers pursuant to the Securities Purchase Agreement dated May 29, 2012, between the Registrant and the purchasers identified therein.	8-K	001-35068	4.8	5/30/2012
4.7	Warrant Modification Agreement to Purchase Common Stock of the Registrant, issued to Hercules Technology II, L.P. dated as of September 17, 2015.				
4.8	Warrant Modification Agreement to Purchase Common Stock of the Registrant, issued to Hercules Technology Growth Capital, Inc. dated as of September 17, 2015.				
10.1#	First Amendment to the Collaboration and License Agreement dated December 16, 2013, between the Registrant and Grünenthal GmbH, effective July 17, 2015.				
10.2#	First Amendment to the Manufacture and Supply Agreement dated December 16, 2013, between the Registrant and Grünenthal GmbH, effective July 17, 2015.				
10.3	Modification of Contract W81XWH-15-C-0046 with the U.S. Army Medical Research and Material Command, effective August 6, 2015.				
10.4	Modification of Contract W81XWH-15-C-0046 with the U.S. Army Medical Research and Material Command, effective August 12, 2015.				
10.5	Modification of Contract W81XWH-15-C-0046 with the U.S. Army Medical Research and Material Command, effective September 4, 2015.				
10.6#	Purchase and Sale Agreement between Registrant and ARPI LLC, dated as of September 18, 2015				
10.7#	Subsequent Purchase and Sale Agreement between ARPI LLC (a wholly owned subsidiary of Registrant) and PDL BioPharma, Inc., dated as of September 18, 2015				
10.8	Consent and Amendment No. 2 to Amended and Restated Loan and Security Agreement, dated as of December 16, 2013, and amended as of September 24, 2014, among the Registrant, Hercules Technology II, L.P. and Hercules Technology Growth Capital, Inc.				
31.1	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.				
31.2	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.				
32.1	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.*				

101.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

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+ Indicates management contract or compensatory plan.

Material in the exhibit marked with a "[*]" has been omitted pursuant to a request for confidential treatment filed with the SEC. Omitted portions have been filed separately with the SEC.

* The certifications attached as Exhibit 32.1 accompany this Quarterly Report on Form 10-Q pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed "filed" by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

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.

Date: November 2, 2015

AcelRx Pharmaceuticals, Inc.
(Registrant)

/s/ Timothy E. Morris
Timothy E. Morris
Chief Financial Officer and Head of Business Development
(Duly Authorized and Principal Financial and Accounting Officer)

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Material in the exhibit marked with a "[*]" has been omitted pursuant to a request for confidential treatment filed with the SEC. Omitted portions have been filed separately with the SEC.

* The certifications attached as Exhibit 32.1 accompany this Quarterly Report on Form 10-Q pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed "filed" by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

Exhibit 4.7

WARRANT MODIFICATION AGREEMENT

This Warrant Modification Agreement is entered into as of September 17 2015, between Hercules Technology II, L.P. (the "Warrantholder") and AcelRx Pharmaceuticals, Inc. (the "Company").

Recitals

A. On December 16, 2013, the Company issued to Warrantholder a warrant (the "Warrant") to purchase shares of its Common Stock on such terms as set forth therein. Any terms not specifically defined herein shall have the meanings set forth in the Warrant.

B. In connection with an amendment to the Loan Agreement of even date herewith, the Company and the Warrantholder now desire to adjust the Exercise Price of the Warrant.

Now, therefore, for good and valuable consideration, the receipt of which is hereby acknowledged, the Company and Warrantholder agree as follows:

1. The term "Exercise Price" in the Warrant is hereby amended and restated in its entirety as follows:

"Exercise Price" means $3.88.

2. Except as specifically set forth in this Warrant Modification Agreement, the Warrant remains unmodified and in full force and effect.

***

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by its officers thereunto duly authorized as of the date set forth above.

COMPANY: ACELRX PHARMACEUTICALS, INC.

By: /s/ Timothy E. Morris

Name: Timothy E. Morris

Title: Chief Financial Officer

WARRANTHOLDER: HERCULES TECHNOLOGY II, L.P.
a Delaware limited partnership

By: Hercules Technology SBIC Management, LLC,
its General Partner
By: Hercules Technology Growth Capital, Inc.,
its Manager

By: /s/ Ben Bang
Name: Ben Bang
Title: Associate General Counsel

[signature page]

Exhibit 4.8

WARRANT MODIFICATION AGREEMENT

This Warrant Modification Agreement is entered into as of September 17 2015, between Hercules Technology Growth Capital, Inc. (the "Warrantholder") and AcelRx Pharmaceuticals, Inc. (the "Company").

Recitals

A. On December 16, 2013, the Company issued to Warrantholder a warrant (the "Warrant") to purchase shares of its Common Stock on such terms as set forth therein. Any terms not specifically defined herein shall have the meanings set forth in the Warrant.

B. In connection with an amendment to the Loan Agreement of even date herewith, the Company and the Warrantholder now desire to adjust the Exercise Price of the Warrant.

Now, therefore, for good and valuable consideration, the receipt of which is hereby acknowledged, the Company and Warrantholder agree as follows:

1. The term "Exercise Price" in the Warrant is hereby amended and restated in its entirety as follows:

"Exercise Price" means $3.88.

2. Except as specifically set forth in this Warrant Modification Agreement, the Warrant remains unmodified and in full force and effect.

***

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by its officers thereunto duly authorized as of the date set forth above.

COMPANY: ACELRX PHARMACEUTICALS, INC.

By: /s/ Timothy E. Morris

Name: Timothy E. Morris

Title: Chief Financial Officer

WARRANTHOLDER: HERCULES TECHNOLOGY GROWTH CAPITAL, INC.

By: /s/ Ben Bang
Name: Ben Bang
Title: Associate General Counsel

[signature page]

Exhibit 10.1

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

First Amendment to the Collaboration and License Agreement

This First Amendment to the Collaboration and License Agreement (this "***Amendment***") entered into between **AcelRx Pharmaceuticals, Inc.**, a company organized under the laws of the State of Delaware, United States ("***AcelRx***"), and having a principal place of business at 351 Galveston Drive, Redwood City, CA 94063, United States, and **Grünenthal GmbH**, a company organized under the laws of Germany ("***Grünenthal***"), having its registered office at Zieglerstrasse 6, 52078 Aachen, Germany effective as of 17th July 2015 (the "***Amendment Effective Date***").

WHEREAS, AcelRx and Grünenthal (the "***Parties***") entered into that certain Collaboration and License Agreement dated as of December 16, 2013 (the "***Agreement***"), and the Parties desire to amend certain aspects of the Agreement, as set forth herein.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, AcelRx and Grünenthal hereby agree as follows:

1. The Parties have agreed to amend the Agreement as of the Amendment Effective Date as follows:

a. Section 1.1 of the Agreement shall be amended and replaced in its entirety to read as follows:

"**1.1** ***"Accessories"*** shall mean the [*]."

b. Section 1.15 of the Agreement shall be amended and replaced in its entirety to read as follows:

"**1.15** ***"Assigned Trademarks"*** shall mean (a) the AcelRx Trademarks that are approved by the EMA and by any other Regulatory Authority in the Territory for use with the Licensed Product upon the grant of the respective Marketing Approval in the Territory, if and when assigned to Grünenthal pursuant to the terms of this Agreement; and (b) for purposes of Sections 14.2, 14.3, 14.4 and 14.5, the Grünenthal Trademarks and Grünenthal Supplemental Trademarks registered or used in connection with the Licensed Products."

c. Section 1.42 of the Agreement shall be amended and replaced in its entirety to read as follows:

"**1.42 (a)** ***"Dispenser Kit"*** shall mean a complete kit consisting of 1 Dispenser, 1 Dispenser Cap, 1 Thumb Tag and 1 patient reference sheet (a PRS) for use with or as part of the Device.

1.42(b) ***"Disposable Components"*** shall mean the Dispenser Caps and Thumb Tags."

d. Section 1.65 shall be amended and replaced in its entirety to read as follows::

"**1.65 (a*)*** ***"Grünenthal Trademark"*** shall have the meaning set forth in Section 10.7.

1.65 (b*)* ***"Grünenthal Supplemental Trademarks"*** shall mean the trademarks, trade names, trade dresses, domain names, logos and brandings, including domain names and design marks, that have been and/or will be obtained by Grünenthal and/or its Affiliates in connection with the Licensed Product, including those that are listed in Exhibit 1.65 (b) ."

e. Section 1.78 of the Agreement shall be amended and replaced in its entirety to read as follows:

"**1.78** ***"Licensed Product"*** shall mean (a) AcelRx´s ARX-01 (any and all components thereof, and the system, which as existing as of the Effective Date is described in **Exhibit 1.78**), and (b) any and all improvements and/or modifications thereof. For clarity, for purposes of this Section 1.78, Licensed Product shall include the Drug, Device, Dispenser, Kit, Disposable Components, Reusable Components, and Accessories, whether sold together or separately."

f. Section 1.83 shall be amended and replaced in its entirety to read as follows:

"**1.83** ***"Material Agreements"*** shall have the meaning set forth in Section 11.2 (j). The Material Agreements identified on the Effective Date and any further Material Agreements further identified by the Parties are listed in Exhibit 1.83.

g. The last sentence of the second full paragraph of Section 1.89 shall be amended and replaced in its entirety to read as follows:

"For clarity, for purposes of this Section 1.89, the "Licensed Product" shall include the Drug, Device, Reusable Components, Dispenser Kit, Disposable Components and Accessories, whether sold together or separately."

h. Section 1.102 of the Agreement shall be amended and replaced in its entirety to read as follows:

*"***1.102** ***"Reusables Kit"*** shall be replaced in its entirety in all uses in this Agreement by the term ***"Reusable Components"*** and shall mean the [*]."

i. Section 2.1(a) shall be amended and replaced in its entirety to read as follows:

"(a) **Technology and AcelRx Trademark Licenses to Grünenthal.** Subject to the terms and conditions of this Agreement, including the payment of milestones and royalties hereunder, AcelRx hereby grants and causes its Affiliates to grant to Grünenthal under the AcelRx Technology, the Assigned Patent(s) and the AcelRx Trademarks (i) an exclusive (even as to AcelRx, its Affiliates and Third Parties) license to research (subject to Sections 2.1(c) and 2.3 hereunder), develop (subject to Sections 2.1(c) and 2.3 hereunder), import (subject to Sections 2.1(c) and 2.3 hereunder), use, commercialize, sell, offer for sale the Licensed Product in the Field, in each case in the Territory, and (ii) a co-exclusive (with AcelRx or its Affiliates only) license to Manufacture and have Manufactured, use and import the Licensed Product anywhere in the world solely for use, commercialization, importation, sale or offer for sale in the Field in the Territory by Grünenthal, its Affiliates, Sublicensees and Distributors; provided, that the foregoing licenses to Grünenthal under the AcelRx Trademarks shall end upon assignment of the Assigned Trademark as provided under Section 10.1(c) and the foregoing licenses to Grünenthal under the Assigned Patents shall end upon assignment of the Assigned Patent as provided under Section 10.1(b) (subject to reinstatement in the case of Section 10.2(c)). For the avoidance of doubt, "Licensed Product" as used in this Section 2.1(a), and as applicable in other provisions of this Agreement, refers to and includes all the components of the Licensed Product *(e.g.* Device, Drug, Dispenser Kit, Disposable Components, Reusable Components and/or Accessories) as well as the system as a whole."

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

j. Section 2.1(c) of the Agreement shall be amended and replaced in its entirety to read as follows:

"(c) License to AcelRx. Subject to the terms and conditions of this Agreement, Grünenthal hereby grants and causes its Affiliates to grant to AcelRx:

(i) a royalty-free, fully-paid, exclusive license, with the right to grant sublicenses, under the Grünenthal Technology for AcelRx and its Affiliates:

(A) to commercialize, sell, and offer for sale the Licensed Product for any purpose outside the Field or outside the Territory; and

(B) to Manufacture, have Manufactured, use and import the Licensed Product for any purpose outside the Field; and

(ii) a royalty-free, fully-paid, non-exclusive license, with the right to grant sublicenses, under the Grünenthal Technology for AcelRx and its Affiliates:

(A) to conduct research and development activities with respect to the Licensed Product worldwide but, during the Term, subject to the terms of Article 4 with respect to the Territory, including the limitations imposed by Section 4.3(d); and

(B) to perform AcelRx's obligations under this Agreement and the Supply Agreement (in the Field in the Territory) but, during the Term, subject to the terms of Article 4 with respect to the Territory, including the limitations imposed by Section 4.3(d); and

(iii) a royalty-free, fully-paid, co-exclusive (with Grünenthal or its Affiliates only) license, with the right to grant sublicenses, under the Grünenthal Technology, the Assigned Patent(s) and the Assigned Trademark(s) for AcelRx and its Affiliates to Manufacture and have Manufactured, use and import the Licensed Product anywhere in the world solely for use, commercialization, importation, sale or offer for sale in the Field in the Territory by Grünenthal, its Affiliates, Sublicensees and Distributors; and

(iv) a royalty-free, fully-paid, non-exclusive license, with the right to grant sublicenses, under the exclusive license granted to Grünenthal pursuant to Section 2.1(a) for AcelRx and its Affiliates to conduct research and development activities with respect to the Licensed Product worldwide but, during the Term, subject to the terms of Article 4 with respect to the Territory, including the limitations imposed by Section 4.3(d)."

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k. Section 2.2(a) of the Agreement shall be amended and replaced in its entirety to read as follows:

"**(a) Right to Sublicense and Sub-Contract**. Grünenthal shall have the right to sublicense any of its rights granted to it under this Agreement to its Affiliates as and when elected by Grünenthal. Grünenthal shall also have the right to sublicense its rights granted under this Agreement to any Third Parties (who may further sublicense to a Distributor), [*], it being understood that [*]. AcelRx's review and approval shall [*]. AcelRx shall have thirty (30) days to review and notify Grünenthal [*]. If AcelRx timely notifies Grünenthal in writing [*] within such thirty (30) day period, then Grünenthal shall not enter into such proposed sublicense [*]. [*], provided that [*], as applicable, and shall provide that [*]. Grünenthal shall remain responsible for the performance of its Affiliates, Sublicensees and sub-contractors hereunder. For clarity, Affiliates of Grünenthal to which Grünenthal has sublicensed its rights hereunder may further sublicense consistent with this Section 2.2(a) the same as Grünenthal itself may grant sublicenses consistent with this Section 2.2(a)."

l. Section 2.8 of the Agreement shall be amended and replaced in its entirety to read as follows:

"2.8 Australia Sub-licensing and Right of Removal. Either Party shall have the right to remove the country of Australia from the Territory immediately upon prior written notice to the other Party if [*]. For clarity, effective upon such written notice from either Party as permitted and contemplated by the foregoing, Australia shall no longer be included in the Territory, neither of this Agreement nor the Supply Agreement, and such notice shall relieve both Parties of obligations with respect to one another relating to Australia.

m. In Section 5.1(b) of the Agreement, the parenthetical "(e.g. Device, Drug, Dispenser Kit, Reusable Components and Accessories)" shall be amended to add "Disposable Components" to the list within the parenthetical.

n. In Section 5.1(b) of the Agreement, the second sentence shall be amended and replaced in its entirety to read as follows:

"Grünenthal shall use Commercially Reasonable Efforts to conduct the commercialization activities in accordance with such Commercialization Plan; provided, that for purposes of this Section 5.1(b), Commercially Reasonable Efforts means that Grünenthal shall have **[*]**".

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

o. Section 6.2 of the Agreement shall be amended and replaced in its entirety to read as follows:

"**6.2 Demo Device.** AcelRx shall Manufacture and have Manufactured the Device or other samples of components of the Licensed Product (*"**Demo Device**"*) for use in training in accordance with applicable Regulatory Requirements in the Territory, as then in effect for use by Grünenthal (and its Affiliates, distributors or licensees) for sampling or demonstration purposes [*]. In any event, the Parties will discuss and agree upon the nature and quality of the Demo Device, planned quantities and supply of Demo Devices to be delivered to Grünenthal in advance of any Manufacture of Demo Device. Rights to the Demo Devices Manufactured in accordance with Grünenthal's specifications shall remain with Grünenthal, other than to the extent of AcelRx Technology, provided that AcelRx shall have the right, upon written notice to Grünenthal, to use, Manufacture, commercialize and/or sell all or any portion of such Demo Device outside of the Territory [*] a full-paid, royalty free worldwide license for the non-exclusive right to use, sell, have sold, Manufacture, have manufactured or imported any such Demo Device outside of the Territory."

p. In Section 7.2(a), R&D Milestone 7 shall be amended and replaced in its entirety to read as follows (without affecting the terms set forth in the "R&D Milestones" table for the payment of such R&D Milestone 7):

"[*]	[*]"

q. In Section 7.2(b), the Commercial Milestones 2 and 3 shall be reduced and replaced in its entirety as follows:

"[*]	[*]
[*]	[*]"

(A)

r. A new Section 7.2 (c) of the Agreement shall be added which shall read as follows:

"**7.2(c)** Grünenthal shall pay to AcelRx [*] within thirty (30) days after the [*]."

s. In Section 7.5 of the Agreement the term "three Business Days" shall be replaced by "fifteen (15) days", referring to the payment of Royalties accrued following the delivery of the Royalty Report

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t. Section 10.7 shall be amended and replaced in its entirety to read as follows:

"**10.7 Trademarks; General.** The Licensed Product shall be sold in each country of the Territory under the AcelRx Trademark "Zalviso" and if applicable, the related Grünenthal Supplemental Trademarks, unless such AcelRx Trademark is determined to be unacceptable to the respective competent Regulatory Authority for the country/countries of the Territory concerned, in which event AcelRx and Grünenthal will agree on another AcelRx Trademark (the "***Alternative AcelRx Trademark***") and upon written agreement by both Parties, Grünenthal may obtain additional Grünenthal Supplemental Trademarks related to such Alternative AcelRx Trademark. If all AcelRx Trademarks are determined to be unacceptable to the respective competent Regulatory Authority in the Territory, then Grünenthal shall have the right to select a trademark owned by Grünenthal (the "***Grünenthal Trademark***") for use with the Licensed Product in the Territory. Upon request of AcelRx, the Parties shall discuss whether Grünenthal may grant license rights under the Grünenthal Trademark and/or any Grünenthal Supplemental Trademarks to commercialize, sell, offer for sale the Licensed Product outside the Territory and under what terms. Grünenthal shall own the Assigned Trademark(s) in the relevant countries in the Territory, subject to prosecution and maintenance of such AcelRx Trademark with AcelRx's consent, which consent shall not be unreasonably withheld, and subject to Sections 14.2, 14.3, 14.4 and 14.5, as applicable. AcelRx shall provide all reasonable assistance required by Grünenthal in connection therewith. AcelRx will have the right to use the AcelRx Trademarks, Grünenthal Trademarks or Grünenthal Supplemental Trademarks used with the Licensed Product in connection with the supply of Licensed Product to Grünenthal. Grünenthal shall not use the Assigned Trademarks, the Grünenthal Trademarks or the Grünenthal Supplemental Trademarks in connection with (i) the using, promotion, marketing, importing, distributing, selling or offering for sale of any product other than the Licensed Product nor (ii) in connection with using, promoting, marketing, importing, distributing, selling or offering for sale of any product outside the Territory. The Assigned Trademarks shall be used in accordance with the quality guidelines of AcelRx to ensure that the use of such Assigned Trademarks in the Territory is maintained in a manner consistent with the quality standards of AcelRx applicable outside of the Territory."

u. The first sentence of Section 10.8 shall be amended and replaced in its entirety to read as follows:

"The Party that owns (the ***"Trademark Owner"***) the applicable Trademark (whether AcelRx Trademarks, Assigned Trademarks, Grünenthal Trademarks or Grünenthal Supplemental Trademarks), shall have the right to take appropriate steps to protect its Trademark from all harmful or wrongful activities of Third Parties in the Territory."

v. In Section 16.9 of the Agreement, the AcelRx address for notices shall be amended and replaced in its entirety to read as follows (without affecting the Cooley LLP address for copies):

"**To AcelRx:**

AcelRx Pharmaceuticals, Inc.
351 Galveston Drive
Redwood City, CA 94063
Attention: Chief Executive Officer
Facsimile: + 1-650-216-6500"

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w. The following text and table shall be added to the end of Exhibit 1.38 of the Agreement:

"[*]"

x. Exhibit 1.1 of the Agreement shall be amended and replaced in its entirety to read as the Exhibit 1.1 attached to this Amendment as of the Amendment Effective Date.

y. A new Exhibit 1.65(b) shall be added, reading as Exhibit 1.65 (b) attached to this Amendment.

z. Exhibit 1.83 shall be amended and replaced in its entirety to read as the Exhibit 1.83 attached to this Amendment.

aa. Exhibit 3.3 of the Agreement shall be amended and replaced in its entirety to read as the Exhibit 3.3 attached to this Amendment.

bb. All capitalized terms and definitions used in this Amendment shall have the same meaning as defined in the Agreement.

2. The Agreement continues in full force and effect in accordance with its terms, as amended by this Amendment. Except as expressly set forth in and as contemplated by this Amendment, the Agreement shall not be amended hereby.

3. This Amendment comes into force as of the date both AcelRx and Grünenthal have executed this Amendment, which shall be as of the date first set forth above.

[Signature Page Follows]

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IN WITNESS WHEREOF, each Party hereto has executed or caused this Amendment to be executed on its behalf as of the Amendment Effective Date.

AcelRx PHARMACEUTICALS, INC.

By: /s/ Timothy E. Morris

Name: Timothy E. Morris

Title: Chief Financial Officer

GRÜNENTHAL GmbH

By: /s/ Alberto Grua

Name: DoH. Alberto Grua

Title: Member of Corporate Executive Board
CCO EU, AUS, NA & GPS

By: /s/ Eric Paul Paques

Name: Prof. Dr. Eric Paul Paques

Title: CEO

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Exhibit 1.1

Accessories:

[*]

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Exhibit 1.65(b)

Grünenthal Supplemental Trademarks (in any color):

Design marks:

(1*)

(1*) This Grünenthal Supplemental Trademark shall not be an Assigned Trademark nor subject to assignment to AcelRx notwithstanding anything in the Agreement.

and any other design trademark(s) relating to the Licensed Product registered by or on behalf of AcelRx or Grünenthal for the Territory.

Domain names:

1. zalviso.es
2. zalviso.co.uk
3. zalviso.it
4. zalviso.fi
5. zalviso.se
6. zalviso.no
7. zalviso.dk
8. zalviso.be
9. zalviso.nl

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10. zalviso.fr
11. zalviso.lu
12. zalviso.ie
13. zalviso.pt
14. zalviso.ch
15. zalviso.at
16. zalviso.eu

and any other domain names relating to the Licensed Product registered by or on behalf of AcelRx or Grünenthal for the Territory.

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Exhibit 1.83

Material Agreements

[*]

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Exhibit 3.3

"For Grünenthal:

Corporate Alliance Management and/or Project Management (each of whom shall be separately identified and designated)

For AcelRx:

Alliance Management & Corporate Development (to be separately identified and designated)

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit 10.2

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

First Amendment

to the Manufacture and Supply Agreement dated December 16, 2013

This First Amendment to Manufacture and Supply Agreement (this "***Amendment***") entered into as of 17 July, 2015 (the "***Effective Date***") between **AcelRx Pharmaceuticals, Inc.**, a company organized under the laws of the State of Delaware, United States ("***AcelRx***"), and having a principal place of business at 351 Galveston Drive, Redwood City, CA 94063, United States, and **Grünenthal GmbH**, a company organized under the laws of Germany ("***Grünenthal***"), having its registered office at Zieglerstrasse 6, 52078 Aachen, Germany.

WHEREAS, AcelRx and Grünenthal (the "***Parties***") entered into that certain Manufacture and Supply Agreement dated as of December 16, 2013 (the "***Agreement***"), and the Parties desire to amend certain aspects of the Agreement, as set forth herein.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, AcelRx and Grünenthal hereby agree as follows:

1. The Parties have agreed to amend the Agreement as follows:

   a. The definition of the term "Accessories" shall be amended and replaced in its entirety by the following:

      "1.1 ***"Accessories"*** shall mean the [*]."

   b. The definition of the term **"Dispenser Kit"** shall be amended and replaced in its entirety by the following:

   "1.15 (a) **"Dispenser Kit"** shall mean a complete kit consisting of 1 Dispenser, 1 Dispenser Cap, 1 Thumb Tag and 1 patient reference sheet (a PRS) for use with or as part of the Device.

   c. Section 1.33 "Minimum Order Quantities" shall be amended and replaced in its entirety by the following:

   "1.33 "**Minimum Order Quantities"** shall mean, minimum purchase order quantities submitted by Grünenthal to AcelRx during each period pursuant to this Agreement for each component of the Product as listed in **Exhibit D**.

d. Section 1.44 “Replacement Components” shall be amended and replaced in its entirety to read as follows:

“1.44 **“Disposable Components”** shall mean those items specified as Disposable Components in **Exhibit A**. For clarity, Disposable Components are optional purchase items and made available by AcelRx as provided for in Section 2.5.”

e. The definition in Section 1.45 **“Reusables Kit”** shall be replaced in its entirety in all uses in the Agreement by the term **“Reusable Components”,** and Section 1.45 “Reusables Kit” shall be amended and replaced in its entirety by the following:

“1.45 **“Reusable Components”** shall mean the components listed as Reusable Components in **Exhibit A**.”

f. Section 1.47 “Small Quantity Cost” shall be deleted.

g. Section 1.53 “Transfer Price” shall be amended and replaced in its entirety by the following:

“1.53 “**Transfer Price**” shall mean

(a) with regard to the Product ordered and supplied, as per Grünenthal’s decision, in Secondary Packaged Form, as specified in Exhibit 1.53 under (A) for the Secondary Packaged Form and

(b) with regard to the Product ordered and supplied, as per Grünenthal’s decision, in Primary Packaged Form, for each Product component, as specified in Exhibit 1.53 under Section (B) for the Primary Packaged Form;

[*] exclusive of any VAT or other taxes, applied to the Product or any portion thereof in accordance with Applicable Laws, which taxes shall be paid by Grünenthal.

For clarity, the abovementioned price per unit limitations as per this Section 1.53 shall apply to Drug cartridges, Dispenser Kits and Reusable Components and its components ordered for and delivered in the applicable year and Form of Product, and in any event shall be subject to minimum purchase requirements set forth in this Agreement, including Minimum Order Quantities.”

h. A new Section 1.55 **“Commercially Reasonable Efforts”** shall be added as follows:

“1.55 “Commercially Reasonable Efforts” shall mean that level of efforts and resources, with respect to a particular Party, at the relevant point in time, that is consistent with the usual practice followed by that Party, in the exercise of its reasonable scientific and business judgment relating to other prescription pharmaceutical products owned or licensed by it or to which it has exclusive rights, which have market potential and are at a stage of development or product life similar to the applicable Product, taking into account: relative safety and efficacy; the likely competitive environment at the time of projected entry into the market; feasibility of manufacture; development, regulatory approval, manufacturing, and commercialization costs; the proprietary position of the compound or product, including the strength and duration of patent protection and reasonably anticipated exclusivity; the likelihood of obtaining Regulatory Approvals and the timing of such approvals; labeling or anticipated labeling; relative profitability; and other relevant factors, including technical, legal, commercial, scientific, and/or medical factors that such Party reasonably believes to be relevant to the Product in the Territory.“

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended

i. A new Section 1.56 **"Secondary Packaged Form"** shall be added to Article 1 "Definitions" as follows:

"1.56 **"Secondary Packaged Form"** shall mean the secondary packaged form of the Product as specified for each component in **Exhibit C**."

j. A new section 1.57 "Western European Countries" shall be added to Article 1 "Definitions":

"1.57 **"Western European Countries"** shall mean Germany, Denmark, Finland, Norway, United Kingdom, Ireland, Sweden, Portugal, France, Belgium, Luxembourg, The Netherlands, Italy, Spain, Austria, and Switzerland. "

k. Section 2.2**(a) "Initial Forecast", (c) "Rolling Forecast", (d) "Binding Commitments",** and **(f) "Excess Quantities"** shall be amended and replaced in their entirety as follows:

"2.2 (a) Initial Forecast. Not less than [*] following the Effective Date, Grünenthal shall provide AcelRx a non-binding forecast (**"Preliminary Non-Binding Forecast"**) of what Grünenthal expects to provide as its Initial Forecast, when that becomes due to be provided pursuant the following sentence. Not less than [*] prior to the first anticipated delivery of the Product to Grünenthal, Grünenthal shall provide AcelRx its initial [*] rolling forecast (**"Initial Forecast"**) separated into quantities of Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories, and initial [*] purchase order for Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories. Except as may be expressly agreed by the Parties, the applicable Firm Order period as set forth in Section 2.2(d) shall be no more than [*], and no less than [*], of the Preliminary Non-Binding Forecast.

...

(c) Rolling Forecast. Following the Initial Forecast, Grünenthal shall provide AcelRx [*] with a written [*] rolling forecast (the "**Rolling Forecast**") of the quantities of Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories required by Grünenthal and its Sublicensees and Distributors, and each subsequent [*] update to the Rolling Forecast shall be provided no later than [*] Business Days after the beginning of the next [*] period; provided, that

(i) during [*], the monthly forecast amount of the Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories for the cumulated period of the Firm Orders as per Section 2.2(d) shall not be less than [*] and not be more than [*] of the respective previous monthly forecast amounts of the Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories; and

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended

(ii) for [*], the monthly forecast amount of the Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories for the cumulated period of the Firm Orders as per Section 2.2(d) shall not be [*] and not be more than [*] of the respective previous monthly forecast amounts of the Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories; and

(iii) thereafter, the monthly forecast amount of the Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories for the cumulated period of the Firm Orders as per 2.2 (d) shall not be less than [*] and not be more than [*] of the respective previous monthly forecast amounts of the Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories in the applicable previous Rolling Forecast; and further provided

(iv) that any such percentage boundaries as listed in (i)-(iii) above shall only apply in case of an uninterrupted supply (i.e., supplied in accordance with this Agreement) by AcelRx with all of Grünenthal's, its Sublicensee's and/or Distributor's requirements of Products.

. . .

(d) [*] Binding Commitments. With respect to the Drug, the first [*] of the Initial Forecast and thereafter for each [*] of the Rolling Forecast shall constitute a mutually binding commitment, and with respect to the Dispenser Kits, Disposable Components, Reusable Components, and Accessories, the first [*] of the Initial Forecast and thereafter for each [*] of the Rolling Forecast shall constitute a mutually binding commitment, to order, have supplied and take delivery of the total quantity of such Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories forecast for such binding Forecast periods (each commitment, a "**Firm Order**"); provided, that if AcelRx notifies Grünenthal that it is unable to meet the Firm Order quantities [*]. Each Firm Order shall be issued in form of purchase order(s) delivered in accordance with Section 2.4. In no event shall Drug be delivered in excess of the respective firm order by Grünenthal in accordance with 2.4(b) for the Drug.

(f) Excess Quantities. If there is an order in any month for more than the applicable Firm Order, AcelRx shall use Commercially Reasonable Efforts, subject to the total annual [*] Drug cartridges or Dispenser Kits limit set forth in Section 2.2 and the limitations of the APQ with respect to the Drug pursuant to Section 5.1, to Manufacture any quantity of Drug and Dispenser Kits, ordered by Grünenthal in excess of such levels, but in any event, AcelRx's failure to Manufacture any such excess quantities shall not be a breach of this Agreement."

l. Sections 2.4(a) and (b) shall be amended and replaced in its entirety as follows:

"(a) Grünenthal shall submit to AcelRx firm purchase order(s) for Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories, which firm purchase orders shall be in accordance with the applicable Minimum Order Quantities for each of Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories and in accordance with the applicable Firm Orders.

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(b) Each purchase order shall specify the quantity of each of Drug, Dispenser Kit, Disposable Components, Reusable Components, or Accessories ordered per month, the required delivery date (which shall not, with respect to the Drug, be less than [*] following the date of such purchase order (for the first delivery not less than [*]) and with respect to the Dispenser Kit, Disposable Components, Reusable Components, or Accessories, be less than [*] following the date of such purchase order (for the first delivery not less than [*]), and any special instructions and/or invoicing information. AcelRx shall adhere to the artwork released by Grünenthal and any updates hereof, in each case, notified by Grünenthal from time to time and in any case at the latest at the time of the respective order by Grünenthal, provided that Grünenthal shall be responsible for timely providing artwork updates sufficiently in advance to include such artwork in the relevant purchase order for the requested order delivery date. The current lead time for artwork updates as of the Amendment is up to a maximum of [*] of the date of the respective purchase order requesting for any such update. For clarity, Grünenthal shall be responsible for the costs of label and printed component obsolescence amounting to a maximum of [*] volume of Product forecasted in the respective current Rolling Forecast. For the avoidance of doubt, Grünenthal may submit purchase orders separating the Drug from Dispenser Kits, Disposable Components, Reusable Components, and/or Accessories. All such purchase orders remain subject to the terms of this Section 2.4. In addition, the Parties may agree to a delivery schedule that is other than monthly so long as the aggregate amount of Drug, Dispenser Kits, Disposable Components, Reusable Components, and Accessories correspond to the Firm Order amounts for the period in question and the Minimum Order Quantities are satisfied."

m. Section 2.5 shall be amended and replaced in its entirety by the following:

"2.5 **Accessories and Disposable Components.** AcelRx shall adhere to the respective artwork released by Grünenthal and any updates hereof, in each case, notified by Grünenthal from time to time and in any case at the latest at the time of the respective order by Grünenthal, provided that Grünenthal shall be responsible for timely providing artwork updates sufficiently in advance to include such artwork in the relevant purchase order for the requested order delivery date. The current lead time for artwork updates as of the Amendment is up to a maximum of [*] of the respective purchase order requesting for any such update. If requested by Grünenthal, AcelRx will use Commercially Reasonable Efforts to enter into supply or purchase agreements with the Third Party suppliers for such Accessories and Disposable Components based on the requirements of Grünenthal as listed in Annex 5.3(d)."

n. A new Section 2.6 shall be added to Article 2 as follows:

"2.6 **Delivery according to First-in, First-out (FIFO) principle**. AcelRx shall deliver the Products meeting the Specifications to Grünenthal on a first-in, first-out (FIFO) basis which means that the Products held in stock for the longest time are assumed to be the first to be drawn from store and supplied to Grünenthal in order that inventories consist of the most recently Manufactured and released items."

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o. Section 3.2 shall be amended and replaced in its entirety by the following:

"**3.2 Quality Agreement.** The Parties have executed a quality agreement for the Drug on June 18th, 2014 setting forth in detail the quality assurance arrangements and procedures with respect to the Manufacture of the Drug, reporting customer complaints, drug incident handling, and conducting timely investigations with respect to the Drug in the Territory (**"Quality Agreement for the Drug"**). In addition, prior to the first delivery of the Device at the latest, AcelRx and Grünenthal shall enter into a quality agreement for the Device setting forth in detail the quality assurance arrangements and procedures with respect to the Manufacture of the Device, reporting customer complaints, device incident handling, and conducting timely investigations with respect to the Device in the Territory (**"Quality Agreement for the Device"**). For clarity, references to Quality Agreement in this Agreement shall mean the applicable Quality Agreement for the Drug or Quality Agreement for the Device, as the case may be."

p. In Section 3.4 "Regulatory Inspections; cGMP and QA Audit", the second sentence shall be amended and replaced in its entirety to read as follows:

"Subject to the terms and conditions of any Third Party Manufacturing-related agreements entered into by AcelRx, upon written request to AcelRx not less than [*] prior to the requested visit date, Grünenthal shall have the right to have its representatives visit AcelRx's Manufacturing facilities as well as all relevant Manufacturing sites of Third Party contract manufacturers and suppliers together with AcelRx as an escort, during normal business hours to assess AcelRx's compliance with cGMP and quality assurance standards and to discuss any related issues with its Manufacturing."

q. Section 3.6 "Form of Products" shall be amended and replaced in its entirety to read as follows:

"3.6 Form of Products. AcelRx shall deliver Product to Grünenthal in accordance with the Specifications, as per [*] as further specified [*], either in (a) [*] or (b) in [*]. For Products [*], Grünenthal shall be responsible for ensuring that such final packaging, labeling and shipment of the Product are in compliance with Regulatory Requirements in the Territory and in any event consistent with the label for the Product approved by the Regulatory Authorities in the Territory. In any given Calendar Year, orders for each component Product as specified in Exhibit C must be requested in either [*] or [*]. Once a component Product is ordered in [*], future orders for that same component Product in [*] unless negotiated by the Parties through a separate written agreement. For clarity, unless otherwise expressly agreed by AcelRx to be a shorter period, Grünenthal shall provide a minimum of at least [*] notice to AcelRx to request the supply of Products in [*] and Grünenthal shall not issue such a request before [*]. Any additional development studies required for the [*] and/or requested by Grünenthal will follow the process for additional development work outlined in the License Agreement. Upon written request by Grünenthal, AcelRx agrees to cooperate in good faith and use Commercially Reasonable Efforts to enable Grünenthal's access to AcelRx's Third Party vendors for the Manufacture of the Product that may be useful in support of Grünenthal's responsibilities to export and package Product purchased by Grünenthal for use and sale in the Territory."

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r. Section 3.7(b) "Certificate of Analysis; Certificate of Conformance" and Section 3.7(c) "Acceptance upon Delivery" shall be amended and replaced in their entirety to read as follows:

"**(b) Certificate of Analysis; Certificate of Conformance** AcelRx shall perform or have performed on its behalf, on each batch of Product, all tests specified in the Specifications, the MAA and applicable Regulatory Requirements before delivery of any Product from that batch to Grünenthal, unless the Parties agree on minimum testing requirements in the Technical Agreement and provided, however, that even in case the Parties have agreed on any minimum testing in the Technical Agreement [*] demonstration that all Specification parameters are met. AcelRx shall deliver to Grünenthal, by facsimile or by electronic mail on or before the date of shipment of any Product to Grünenthal, a Certificate of Analysis and a Certificate of Conformance according to cGMP for each batch of Product in that shipment of Product, certifying that Product conforms to the Specifications, along with the results of such analysis and any supporting data. If there is a disagreement in connection with a Certificate of Analysis or Certificate of Conformance, such dispute will be resolved with a submission to independent testing in a procedure substantially in the manner set forth in Section 3.7(c)(i).

(c) Acceptance upon Delivery. Grünenthal shall be under no obligation to accept any shipment of Product for which AcelRx has not provided a Certificate of Analysis or a Certificate of Conformance, as applicable. To the extent that Grünenthal has advised AcelRx in advance of any direct costs for redelivery or pickup of a shipment, AcelRx shall be responsible for such costs if it has not delivered the Certificate of Analysis or Certificate of Conformance, as applicable, with respect to that Product. Grünenthal shall inspect all shipments of the Product promptly upon receipt, and Grünenthal may reject any shipment of the Product which is, according to Grünenthal's full testing, nonconforming. In order to reject delivery of a shipment of the Product, Grünenthal must give written notice to AcelRx of Grünenthal's rejection of any delivery [*] after receipt of such delivery or with regard to [*]. If no such notice of rejection is received, Grünenthal shall be deemed to have accepted such Product on the [*] day after delivery, subject to later detection of hidden defects. For clarity, a [*]. If AcelRx manufactures Product in accordance with the agreed upon Specifications and Manufacturing requirements and a portion of the Product delivered does not meet the Specifications, Grünenthal shall only be entitled to reject the non-conforming Product delivered."

s. A new Section 3.15 "Artwork ownership" shall be added to Article 3 as follows:

"**3.15 Artwork Ownership.** All rights in the artwork, design and detailed specifications for the packaging and trade dress of the Product and all printing plates, films, transparencies and other relevant printing materials [*]. AcelRx shall notify its Third Party suppliers of [*]"

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t. A new Section 3.16 “Pick and Pack of Product Components” shall be added to Article 3 as follows:

“**3.16 Pick and Pack of Product Components**. The Parties agree that Grünenthal and/or Grünenthal’s subcontractor shall be entitled to commission one or multiples of the Device components of the Products in the form delivered by AcelRx to a “set” including an IFU (Instructions for Use) in shipping cartons. In case Grünenthal will be supplied with [*].”

u. Section 4.1(a) shall be amended and replaced in its entirety to read as follows:

“(a) AcelRx shall Manufacture and supply the Product and Devices under this Agreement at a [*].”

v. Section 4.1(c) shall be deleted in its entirety.

w. Section 5.1(a) shall be amended by adding the following sentence at the end of the existing paragraph:

“For clarity, Grünenthal acknowledges and agrees that the U.S. Drug Enforcement Administration quota to purchase the active ingredient Sufentanil Citrate potion of the Product ends on 31 March of each year of this Agreement for the following Calendar Year and as a result any increases to the rolling forecast after 31 March that would result in additional requests to the increase the APQ for such Calendar Year may not be obtained from the DEA. Accordingly, any shortage of Product or interruption of supply resulting from a change in the rolling forecast from Grünenthal that results in a shortage of APQ due to failure to obtain the additional quota necessary to meet a revised rolling forecast requirement under this Agreement will not represent a failure to use commercially reasonable efforts or a breach of this Agreement or the License Agreement.”

x. Section 5.1(b) shall be amended and replaced in its entirety to read as follows:

“(b) If AcelRx is unable to supply the full quantity of Product ordered pursuant to this Agreement, Grünenthal shall be entitled to receive that quantity of Product which bears the same proportion to the total quantity of available Product as [*]. AcelRx shall use its Commercially Reasonable Efforts to meet Grünenthal's additional supply needs for Product during the period of any Product shortage. Grünenthal shall [*]. If the shortage of Product described in this Section 5.1(b) affects Drug or Device portions of the Product unequally, or affects only the Drug or only the Device, then the proportional allocation of Product described herein shall instead be a separate, proportional allocation of each of the Drug and/or Device portions of the Product, based on the total quantity of each available and the total quantity of each sold by Grünenthal in the [*] preceding the supply shortage.”

y. Section 5.3(b) Request for Back-up manufacturer shall be extended by a further new paragraph as follows:

“In addition, notwithstanding the foregoing, upon the written request of Grünenthal at any time, AcelRx agrees, at Grünenthal’s costs to reasonably consider and qualify (i.e., prepare for Regulatory Approval) a second site for Manufacture of the Product at a different facility that is capable of supplying Product in the Field for the Territory.”

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z. Section 5.3(d) shall be amended and replaced in its entirety to read as follows:

"(d) Stand-By Contracts. Beginning not later than [*], AcelRx shall use Commercially Reasonable Efforts to enter into Stand-By Contracts with each Third Party providing significant manufacturing and/or supply services to AcelRx as listed in Exhibit 5.3 (d)(1) - (4) in connection with the Manufacturing of the Drug, the Device and/or other components of the Product for the Territory such that through these Stand-By Contracts Grünenthal will have access to such Third Party supplier if Grünenthal exercises its rights under such Stand-By Contracts. Each "Stand-By Contract" with such a Third Party manufacturing and supply service provider as listed in Exhibit 5.3 (d)(1) – (4) shall be a letter agreement in the form of Exhibit B providing that upon receipt notice from Grünenthal, [*]. Grünenthal covenants it shall not provide such a notice under a Stand-By Contract unless and until any of the following has occurred: (i) there has been a Failure Event, (ii) AcelRx has terminated this Agreement or the License Agreement other than as permitted thereunder due to a material breach by Grünenthal, (iii) upon the bankruptcy or insolvency of, or the filing of an action to commence insolvency proceedings against AcelRx, or the making or seeking to make or arrange an assignment for the benefit of creditors of AcelRx, or the initiation of proceedings in voluntary or involuntary bankruptcy, or the appointment of a receiver or trustee of AcelRx's property, or (d) this Agreement or the License Agreement are rejected in any proceeding for the bankruptcy or insolvency of AcelRx. To the extent AcelRx owns tooling, molds, equipment or other tangible materials that are held by or installed at a Third Party Manufacturing and supplier of AcelRx and which are used or useful in the Manufacture of Licensed Products or components thereof, the Stand-By Contract with such Third Party manufacturing and supplier [*]."

aa. Article 6.2 (c) shall be amended and replaced in its entirety as follows:

"(c) shall have, upon delivery to Grünenthal a remaining shelf life of the Drug, the Thumb Tag, the Dispenser Kit and the Controller, as applicable, of (i) at least [*]. AcelRx shall use Commercially Reasonable Efforts to extend the shelf life of the Drug, the Thumb Tag, the Dispenser Kit and the Controller."

.

bb. The address of AcelRx in Section 11.1 Notices shall be amended and replaced to read as follows:

"AcelRx Pharmaceuticals, Inc.
351 Galveston Drive
Redwood City, CA 94063
Attention: Chief Executive Officer
FAX: +1-650-216-6500"

cc. Exhibit A shall be amended replaced to read in its entirety as set forth in the updated Exhibit A attached to this Amendment.

dd. Exhibit C, Exhibit D, and Exhibit 1.53, and Exhibit 5.3(d), as attached to this Amendment, shall be added to the Agreement and incorporated therein.

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2. All capitalized terms and definitions used in this Amendment shall have the same meaning as defined in the Agreement; provided that all references to the License Agreement shall refer to the License Agreement as amended by the First Amendment executed on even date herewith.

3. The Agreement continues in full force and effect in accordance with its terms, as amended by this Amendment. Except as expressly set forth in and as contemplated by this Amendment, the Agreement shall not be amended hereby.

4. This Amendment comes into force as of the date both AcelRx and Grünenthal have executed this Amendment, which shall be as of the date first set forth above.

[Signature Page Follows]

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IN WITNESS WHEREOF, each Party hereto has executed or caused this Amendment to be executed on its behalf as of the Effective Date.

AcelRx PHARMACEUTICALS, INC.

By: /s/ Timothy E. Morris

Name: Timothy E. Morris

Title: Chief Financial Officer

GRÜNENTHAL GmbH

By: /s/ Alberto Grua

Name: DoH. Alberto Grua

Title: Member of Corporate Executive Board
CCO EU, AUS, NA & GPS

By: /s/ Eric Paul Paques

Name: Prof. Dr. Eric Paul Paques

Title: CEO

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Exhibit A

Accessories:

- [*]

Disposable Components:

- [*]

Reusable Components:

- [*]

Drug

[*]

[*]

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Exhibit C

Secondary Packaged Form of Products

Component	Description	GRT Launch Supplier */ Location for EXW	Packaging of Secondary Packaged Form
[*]	[*]	[*]	■[*]

[*]

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Exhibit D
Minimum Order Quantities

Component	Description	Minimum Order Quantities
[*]	[*]	■[*]

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Exhibit 1.53

[*]

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Exhibit 5.3(d)

Third Party/ies providing significant manufacturing and/or supply services to AcelRx

1) [*]

Upon decision of the Joint Steering Committee, AcelRx shall execute supply and/or manufacturing agreement(s) with any of the following Third Party suppliers:

2) [*]

Upon execution of a supply and/or manufacturing agreement(s) with any of the Third Party suppliers under 5)-8), the respective agreement shall be considered a Material Agreement as per the Collaboration and License Agreement on the Product between the Parties.

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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
S	1 | 10

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
	06-Aug-2015	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USA MED RESEARCH ACQ ACTIVITY 820 CHANDLER ST FORT DETRICK MD 21702-5014	W81XWH	See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
ACELRX PHARMACEUTICALS, INC. 351 GALVESTON DR REDWOOD CITY CA 94063-0000		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W81XWH-15-C-0046
CODE 5ZVQ4 FACILITY CODE	X	10B. DATED (SEE ITEM 13) 11-May-2015

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

☐ A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

X B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

☐ C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

☐ D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: tduvall153788

The purpose of this bilateral modification is to:
1) Remove all funding ($3,490,000.00) from SubCLIN 000103 and update clause 5152.232-9000 to fix an accounting issue. The funds will be reapplied in a future contract modification.
2) Correct DCAA DoDAAC at DFARS 252.232-7006. The cognizant DCAA office is the Silicon Valley Branch Office (DoDAAC: HAA052).
3) Update COR information as a result of new appointment for Andrew J. Atkinson.
All other terms and conditions remain unchanged. See 'Summary of Changes' for details.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Timothy E Morris Chief Financial Officer	Barry G. Sayer TEL: EMAIL: barry.g.sayer.civ@mail.mil

15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)	8.5.15	BY SAYER.BARRY.GENE.1194663028 (Signature of Contracting Officer)	20150806

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

SUBCLIN 000103
The CLIN extended description has changed from:

Funding for CLIN 0001 on PR 0010622458-0001.Amount: $3,490,000.00.Total funded: $10,983,000.00.Remainder to be funded: $6,029,744.49.

To:

The full funding for this subCLIN ($3,490,000.00) has been decremented per PR 0010622458-0003.Amount: $0.00.Total funded: $7,493,000.00.Remainder to be funded: $9,519,744.49 ..

SECTION C - DESCRIPTIONS AND SPECIFICATIONS

The following have been modified:

RDS (RDTE DILUTE SOLUTIONS)(DEC 2006)(USAMRAA)

(a) The Contractor shall operate in a safe environment, with properly safe equipment and procedures. 'this tneans that, at a minimum, the Contractor shall satisfy the RDS-ROTE Dilute Solutions Standard located at http://www.usamraa.army.mil (then click on "Assistance Agreements" then under "Documents" click on "RDS (RDTE Dilute Solutions) Standard (November 2000)."
(b) All RDS disposal shall be addressed prior to expiration of the contract.
(c) Requests for RDS shall be provided, in writing, to the Chief, Safety & Chemical Operations Officer at:

Commander
US Army Medical Research Institute of Chemical Defense
3100 Ricketts Point Road
ATTN: MCMR-CDZ-S
Aberdeen Proving Ground, MD 21010-5400
(410) 436-4433 and fax: (410) 436-3004

with a copy furnished to the Contracting Officer at:

Director
US Army Medical Research Acquisition Activity
820 Chandler Street
ATTN: MCMR-AAA-SD
Fort Detrick, MD 21702-5014
(301) 619-2375

and the Contracting Officer's Representative (COR) at:

US Army Medical Materiel Development Activity

ATTN: Mr. Andrew J. Atkinson
1430 Veterans Way
Fort Detrick, MD 21702-5059
(301) 619-5114

and shall furnish the following information:

Name of the Principal Investigator:
Name(s) and phone number(s) of custodian(s):
Shipment Address:
Contract Number:
RDS, Concent-ation, Amount, Diluent (ifapplicable),
and Specific Activity (if applicable)

SECTION F - DELIVERIES OR PERFORMANCE

The following have been modified:

REPORTING REQUIREMENTS (OCT 2009) (USAMRAA)

Teclmical reporting requiren1ents (Program1natic Line Review, Monthly, Quarterly, and/or Annual/Final Reports) applicable to this award are annotated below:

_____PROGRAMMATIC LINE REVIEW (PLR1

a. The reporting requirements for Telemedicine and Advanced l'echnology Research Center (TATRC) include quarterly, annual and final reports and the Principal Investigator's (PI's) participation in at least one programmatic line review (PLR) for this project each year of the project's period-of-performance.

b. The PI shall prepare for and participate in at least one PLR for this project for each year of the project's te1m, at the COR's request. The invitation and format for the programn1atic review will be provided by TATRC at least 90 days prior to the meeting. The meetings will generally be held in the Fort Detrick, Maryland, area, but may occur elsewhere in the U.S. Participation in the PLR will be in lieu of submitting next scheduled Quarterly report required under the award.

XX MONTHLY TECHNICAL PROGRESS REPORTS

a. The contractor shall sub1nit a Month ly Technical Progress Report covering work accomplished during each 1nonth of contract performance. It shall be brief, factual, and informal, and shall be prepared in accordance with the following:

(1) Cover containing:

(a) Contract number and title

(b) Type of report, sequence nu1nber of report, and period of performance being repo1ted

(c) Contractor's name, address, and telephone number
(a)

(d) Principal Investigator

(e) Date of publication

(f) Contracting Officer's Representative

(2) Section I - A brief introduction covering the purpose and scope of the research effort.

(3) Section II - A brief description of overall progress to date plus a separate description for each task or other logical segment of work on which effort was expended during the report period. Description shall include pertinent data and graphs in sufficient detail to explain any significant results achieved.

(4) Section III - Problem Areas

A description of current problems that may inlpede perforn1ance along with proposed corrective action. (a)

(a)

(b) A description of anticipated problems that have a potential to impede progress and what corrective action is planned should the problem materialize.

(5) Section IV - A description of work to be pe1formed during the next reporting period.

(6) Section V - Administrative Co1nments (Optional) - Description of proposed site visits and participation in technical meetings, journal manuscripts in preparation, coordination with other organizations conducting related work, etc.

(7) Section VI - A Gantt Chart showing actual progress versus scheduled progress.

b. Monthly Technical Progress Reports shall be prepared by the seventh day following the month being repmted, and shall be received within IO days of the report month. The Monthly Technical Progress Repmt shall be submitted to the following addresses:

One Copy: Director
U.S. Army Medical Research Acquisition Activity (USAMRAA)
ATTN: MCMR-AAA-SD
820 Chandler Street
Fmt Detrick, MD 21702-5014

One Copy: US Army Medical Materiel Development Activity
ATTN: Mr. Andrew J, Atkinson
1430 Veterans Way
Fort Detrick, MD 21702-5059

_____QUARTERLY REPORTS

a. Quarterly reports are the most immediate and direct contact between the Principal Investigator (PI) and the Contracting Officer's Representative (COR). The reports provide the means for keeping this Command advised of developments and problems as the contract effort proceeds. The quarterly reports also provide a measure against which decisions on release of funding and on requests for supplements are 1nade.

b. In accordance with Section C., a Qua1terly Report shall be submitted for each three-month period beginning with the effective date of the contract. This requirement includes all three-month periods of the contract.
a.

c. Copies of each report shall be submitted in the quantities indicated to the addresses shown below within fifteen (15) days after the end of each quarter. Internal Government distribution will be made by those offices.

(1) One (1) copy of the report to:

Insert Name and Address of COR

(2) One (1) copy of the report to:

Director
U.S. Army Medical Research Acquisition Activity
ATTN: MCMR-AAA-_(Insert Applicable Office Symbol and Award Number
820 Chandler Street
Fort Detrick, MD 21702-5014

d. The Quaiterly Report sample (See following Quarterly Repmt Format) shall serve as the format. Each item of the report format shall be completed.

QUARTERLY REPORT FORMAT

1. Contract No._____2. Report Date_____

3. Reporting period from_____to_____

4. PI_____5. Telephone No._____

6. Institution_____

7. Project Title_____

8. Current staff, with percent effort of each on project.

%_____ _____%

_____ % _____ _____ %

9. Contract expenditures to date (as applicable):

	This Qtr/Cumulative		This Qtr/Cumulative
Personnel	_____/_____	Travel_____	/_____
Fringe Benefits	_____/_____	Equipment_____	/_____
Supplies	_____/_____	Other	_____

	This Qtr/Cumulative
Subtotal	_____/_____

Indirect Costs _____ /_____

Fee _____ /_____

Total _____ /_____

10. Comments on administrative and logistical matters.

_____

_____

_____

11. Use additional page(s), as necessary, to describe scientific progress for the quarter in terms of the tasks or objectives listed in the statement of work for this contract.

12. Use additional page(s) to present a brief statement of plans or milestones for the next quarter.

FORMAT REQUIREMENTS FOR ANNUAL/FINAL REPORTS

a. Annual reports must provide a complete summary of the research accomplishments to date with respect to the approved Statement of Work. Journal articles can be substituted for detailed descriptions of specific aspects of the research, but the original articles must be attached to the report as an appendix and appropriately referenced in the text. The importance of the report to decisions relating to continued support of the research cannot be over-emphasized. An annual report shall be submitted within 30 calendar days of the anniversary date of the award for the preceding 12-month period. If the award period of performance is extended by the Contracting Officer then an annual report must still be submitted within 30 calendar days of the anniversary date of the award. A final report will be due upon completion of the extended performance date that describes the entire research effort.

b. A final report summarizing the entire research effort, citing data in the annual reports and appended publications shall be submitted at the end of the award performance period. The final report will provide a complete reporting of the research findings. Journal publications can be substituted for detailed descriptions of specific aspects of the research, but an original copy of each publication must be attached as an appendix and appropriately referenced in the text. All final reports must include a bibliography of all publications and meeting abstracts and a list of personnel (not salaries) receiving pay from the research effort.

Although there is no page limitation for the reports, each report shall be of sufficient length to provide a thorough description of the accomplishments with respect to the approved Statement of Work. Submission of the report in electronic format (PDF or Word file only) shall be submitted to https://ers.amedd.army.mil.

All reports shall have the following elements, in this order:

FRONT COVER: A Sample front cover is provided at https://mrmc.amedd.army.mil/rrpindex.asp. The Accession Document (AD) Number should remain blank.

STANDARD FORM 298: A Sample SF 298 is provided at https://mrmc.amedd.army.mil /rrpindex.asp. The abstract in Block 13 must state the purpose, scope, major findings and be an up-to-date report of the progress in terms of results and significance. Subject terms are keywords that may have previously assigned to the proposal abstract or are keywords that may be significant to the research. The number of pages shall include all pages that have printed data (including the front cover, SF 298, table of contents, and all appendices). Please count pages carefully to ensure legibility and that there are no missing pages as this delays processing of reports. Page numbers should be typed: please do not hand number pages.

TABLE OF CONTENTS: Sample table of contents provided at https://rmmc.atnedd.army.1nil/rrpindex.asp.

INTRODUCTION: Narrative that briefly (one paragraph) describes the subject, purpose and scope of the research.

BODY: This section of the report shall describe the research accomplishments associated with each task outlined in the approved Statement of Work. Data presentation shall be comprehensive in providing a complete record of the research findings for the period of the repo1i. Provide data explaining the relationship of the most recent findings with that of previously reported findings. Appended publications and/or presentations may be substituted for detailed descriptions of methodology but must be referenced in the body of the report. Ifapplicable, for each task outlined in the Statement of Work, reference appended publications and/or presentations for details of result findings and tables and/or figures. The report shall include negative as well as positive findings. Include problems in acco1nplishing any of the tasks. Statistical tests of significance shall be applied to all data whenever possible. Figures and graphs referenced in the text may be embedded in the text or appended. Figures and graphs can also be referenced in the text and appended to a publication. Recommended changes or future work to better address the research topic may also be included, although changes to the original Statement of Work must be approved by the Army Contracting Officer's Representative. This approval must be obtained prior to initiating any change to the original Statement of Work.

KEY RESEARCH ACCOMPLISHMENTS: Bulleted list of key research accomplishments emanating from this research.

REPORTABLE OUTCOMES: Provide a list of reportable outcomes that have resulted from this research to include:

> manuscripts, abstracts, presentations; patents and licenses applied for and/or issued; degrees obtained that are supported by this award; development of cell lines, tissue or serum repositories; infomatics such as databases and animal models, etc.; funding applied for based on work supported by this award; employment or research opportunities applied for and/or received based on experience/training supported by this award.

CONCLUSION: Summarize the results to include the importance and/or implications of the completed research and when necessary, recom1nend changes on future work to better address the problem. A nso what section" which evaluates the knowledge as a scientific or medical product shall also be included in the conclusion of the report.

REFERENCES: List all references pertinent to the report using a standard journal format (i.e. fonnat used in Science, Milita1y Medicine, etc.).

APPENDICES: Attach all appendices that contain information that supplements, clarifies or supports the text. Exa1nples include original copies of journal a1iicles, reprints of manuscripts and abstracts, a cu1Ticulum vitae, patent applications, study questionnaires, and surveys, etc.

Pages shall be consecutively numbered throughout the repmt. DO NOT RENUMBER PAGES IN Tiffi APPENDICES.

Mark all pages of the repmt which contain proprietary or unpublished data that should be protected by the U.S. Government. REPORTS NOT PROPERLY MARKED FOR LIMITATION WILL BE DISTRIBUTED AS APPROVED FOR PUBLIC RELEASE. It is the responsibility of the Principal Investigator to advise the U.S.

Army Medical Research and Materiel Command when restricted limitation assigned to a document can be downgraded to Approved for Public Release. DO NOT USE THE WORD "CONFIDENTIAL" WHEN MARKJNG DOCUMENTS.

SECTION G - CONTRACT ADMJNJSTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was decreased by $3,490,000.00 from $10,983,000.00 to $7,493,000.00.

SUBCLTN 000103:

AC: 097201520!60!3000018N l0337374255 R.0014944.4.4 6100.9000021001 A74FG (CTN GFEBS001062245800005) was decreased by $3,490,000.00 from $3,490,000.00 to $0.00

The following have been modified:

252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (MAY 2013)

(a) Definitions. As used in this clause--

Department of Defense Activity Address Code (DoDAAC) is a six position code that uniquely identifies a unit, activity, or organization.

Document type means the type of pay1nent request or receiving report available for creation in Wide Area WorkFlow (WAWF).

Local processing office (LPO) is the office responsible for pay111ent certification when payment certification is done external to the entitlement system.

(b) Electronic invoicing. The WAWF system is the method to electronically process vendor payment requests and receiving repmts, as authorized by DFARS 252.232-7003, Electronic Submission **of Pay1nent Requests and Receiving Reports.**

(c) WAWF access. To access WAWF, the Contractor shall--

(1) Have a designated electronic business point of contact in the Syste1n for Award Management at https://www.acquisition.gov; and

(2) Be registered to use WA WF at https://wawf.eb.mil/ following the step-by-step procedures for self-registration **available at this Web site.**

(d) WAWF training. The Contractor should follow the training instructions of the WAWF Web-Based Training **Course and use the Practice Training Site before submitting payment requests through** WAWF. Both can be accessed by selecting the "Web Based Training" link on the WAWF home page at https://wawf.eb.mil/.

(e) WAWF methods of document submission. Document submissions may be via Web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) WAWF payment instructions. The Contractor must use the following information when submitting payment requests and receiving reports in WAWF for this contract/order:

(1) Document type. The Contractor shall use the following document type(s).

Invoice as a 'Cost Voucher'.

(Contracting Officer: Insert applicable document type(s). Note: If a "Combo" document type is identified but not supportable by the Contractor's business systems, an "Invoice" (stand-alone) and "Receiving Report" (stand-alone) document type may be used instead.)

(2) Inspection/acceptance location. The Contractor shall select the following inspection/acceptance location(s) in WAWF, as specified by the contracting officer.

W806YH

(Contracting Officer: Insert inspection and acceptance locations or "Not applicable".)

(3) Document routing. The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table*

Field Name in WAWF	Data to be entered in WAWF
Pay Official DoDAAC	HQ0490
Issue By DoDAAC	W81XWH
Admin DoDAAC	W81XWH
Inspect By DoDAAC	W806YH
Ship To Code	*NIA*
Ship From Code	*NIA*
Mark For Code	*NIA*
Service Approver (DoDAAC)	HAA052
Service Acceptor (DoDAAC)	W806YH
Accept at Other DoDAAC	*NIA*
LPO DoDAAC	*NIA*
DCAA Auditor DoDAAC	HAA052
Other DoDAAC(s)	*NIA*

(*Contracting Officer: Insert applicable DoDAAC information or "See schedule" if multiple ship to/acceptance locations apply, or "Not applicable.")

(4) Payment request and supporting documentation. The Contractor shall ensure a payment request includes appropriate contract line item and subline item descriptions of the work performed or supplies delivered, unit price/cost per unit, fee (if applicable), and all relevant back-up documentation, as defined in DFARS Appendix F, (e.g. timesheets) in support of each payment request.

(5) WAWF email notifications. The Contractor shall enter the email address identified below in the "Send Additional Email Notifications" field of WAWF once a document is submitted in the system.
andre,v.j.atkinson6.civ@mail. 1nil
(2)

(Contracting Officer: Insert applicable email addresses or "Not applicable.")

(g) WAWF point of contact. (1) The Contractor may obtain clarification regarding invoicing in WAWP from the following contracting activity's WAWF point of contact.

(Contracting Officer: Insert applicable information or "Not applicable.")

(2) For technical WAWF help, contact the WAWF helpdesk at 866-618-5988.

(End of clause)

5152.232-9000 INCREMENTAL FUNDING (November 2014)(USAMRAA)
a. It is estimated that the total cost to the Government for the full performance of this contract for the period of 5/11/2015 to 11/10/2016 will be $17,012,744.49. There have been funds allotted for reimbursement of allowable costs, and applicable fee incurred in the performance of this contract in the amount of only $7,493,000.00. It is estimated that such funded amount shall be sufficient to cover allowable expenses for the period 5/11/2015 to 1/10/2016. The amount of the funds currently allotted may be increased by the Contracting Officer without further concurrence of the contractor. It is estimated that the remaining funds will be made available in accordance with the following schedule:

Funding Source	Year	Amount	Timing
DHP core	FY15	$3,490,000.00	Aug-2015
DHP JWMRP	FY15	$500,000.00	Sep-2015
DHP core	FY16	$5,529,744.49	Jun-2016
TOTAL	*N/A*	$9,519,744.49	*N/A*

b. Pending the availability of additional funds, performance by the contractor shall be governed by the contract clause entitled "Limitation of Funds", FAR 52.232-22.
(End Local Clause)

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
S	1 | 3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00002	12-Aug-2015	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USA MED RESEARCH ACQ ACTIVITY 820 CHANDLER ST FORT DETRICK MD 21702-5014	W81XWH	See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
ACELRX PHARMACEUTICALS, INC. 351 GALVESTON DR REDWOOD CITY CA 94063-0000		9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W81XWH-15-C-0046
	X	10B. DATED (SEE ITEM 13) 11-May-2015
CODE 5ZVQ4	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

☐ A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

☒ B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

☐ C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

☐ D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: tduvall154978

The purpose of this unilateral modification is to change the 'Contract Type' on SubCLINs 000101 thru 000103 from FFP to COST to correspond with the CLIN 0001 contract type and resolve a cost voucher payment issue with DCAA.

All other terms and conditions remain unchanged. See 'Summary of Changes' for details.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) BARRY G. SAYER / CONTRACTING OFFICER TEL: (301) 619-2375 EMAIL: barry.g.sayer.civ@mail.mil	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 01-Sep-2015

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

SUBCLIN 000101

The contract type has changed from FFP to COST.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000101					$0.00
	CLIN 0001 Funding COST Funding for CLIN 0001 on PR 0010622458-0001. Amount: $993,000.00. Total funded: $993,000.00. Remainder to be funded: $16,019,744.49. FOB: Destination PURCHASE REQUEST NUMBER: 0010622458-0001				
				ESTIMATED COST	$0.00
	ACRN AA CIN: GFEBS001062245800003				$993,000.00

SUBCLIN 000102

The contract type has changed from FFP to COST.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000102					$0.00
	CLIN 0001 Funding COST Funding for CLIN 0001 on PR 0010622458-0001. Amount: $6,500,000.00. Total funded: $7,493,000.00. Remainder to be funded: $9,519,744.49. FOB: Destination PURCHASE REQUEST NUMBER: 0010622458-0001				
				ESTIMATED COST	$0.00
	ACRN AB CIN: GFEBS001062245800004				$6,500,000.00

SUBCLIN 000103
The contract type has changed from FFP to COST.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000103					$0.00
	CLIN 0001 Funding COST The full funding for this subCLIN ($3,490,000.00) has been decremented per PR 0010622458-0003. Amount: $0.00. Total funded: $7,493,000.00. Remainder to be funded: $9,519,744.49. FOB: Destination PURCHASE REQUEST NUMBER: 0010622458-0003				
				ESTIMATED COST	$0.00
	ACRN AC CIN: GFEBS001062245800005				$0.00

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
S	1 5

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00003	04-Sep-2015	SEE SCHEDULE	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USA MED RESEARCH ACQ ACTIVITY 820 CHANDLER ST FORT DETRICK MD 21702-5014	W81XWH	See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		9A. AMENDMENT OF SOLICITATION NO.
ACELRX PHARMACEUTICALS, INC. 351 GALVESTON DR REDWOOD CITY CA 94063-0000		9B. DATED (SEE ITEM 11)
	X	10A. MOD. OF CONTRACT/ORDER NO. W81XWH-15-C-0046
CODE 5ZVQ4 FACILITY CODE	X	10B. DATED (SEE ITEM 13) 11-May-2015

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

☐ A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

☒ B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

☐ C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

☐ D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
Modification Control Number: tduvall155426

The purpose of this unilateral modification is to execute PR 0010622458-0006 changes as follows.
1) Reapply all funding ($3,490,000.00) to new SubCLIN 000104. Contract modification P00001 was executed to remove the funding from SubCLIN 000103 and fix an accounting issue.
2) Add incremental funding in the amount of $500,000.00 (SubCLIN 000105).
3) Add incremental funding in the amount of $1,164,049.00 (SubCLIN 000106).
4) Update clause 5152.232-9000 incremental funding schedule.
All other terms and conditions remain unchanged. See 'Summary of Changes' for details.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) BARRY G. SAYER / CONTRACTING OFFICER TEL: (301) 619-2375 EMAIL: barry.g.sayer.civ@mail.mil	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 04-Sep-2015

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION B - SUPPLIES OR SERVICES AND PRICES

SUBCLIN 000104 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000104					$0.00
	CLIN 0001 Funding COST Funding for CLIN 0001 on PR 0010622458-0005 (CLIN 0010). Amount: $3,490,000.00. Total funded: $10,983,000.00. Remainder to be funded: $6,029,744.49. FOB: Destination PURCHASE REQUEST NUMBER: 0010622458-0006				
				ESTIMATED COST	$0.00
	ACRN AD CIN: GFEBS001062245800010				$3,490,000.00

SUBCLIN 000105 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000105					$0.00
	CLIN 0001 Funding COST Funding for CLIN 0001 on PR 0010622458-0005 (CLIN 0011). Amount: $500,000.00. Total funded: $11,483,000.00. Remainder to be funded: $5,529,744.49. FOB: Destination PURCHASE REQUEST NUMBER: 0010622458-0006				
				ESTIMATED COST	$0.00
	ACRN AB CIN: GFEBS001062245800011				$500,000.00

SUBCLIN 000106 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000106					$0.00

CLIN 0001 Funding
COST
Funding for CLIN 0001 on PR 0010622458-0005 (CLIN 0012).
Amount: $1,164,049.00.
Total funded: $12,647,049.00.
Remainder to be funded: $4,365,695.49.
FOB: Destination
PURCHASE REQUEST NUMBER: 0010622458-0006

ESTIMATED COST $0.00

ACRN AE $1,164,049.00
CIN: GFEBS001062245800012

SECTION E - INSPECTION AND ACCEPTANCE

The following Acceptance/Inspection Schedule was added for SUBCLIN 000104:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

The following Acceptance/Inspection Schedule was added for SUBCLIN 000105:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

The following Acceptance/Inspection Schedule was added for SUBCLIN 000106:

INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
N/A	N/A	N/A	Government

SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $5,154,049.00 from $7,493,000.00 to $12,647,049.00.

SUBCLIN 000104:
Funding on SUBCLIN 000104 is initiated as follows:

ACRN: AD

CIN: GFEBS001062245800010

Acctng Data: 097201520160130000 18N10337374255 R.0014944.5.1 6100.9000021001

Increase: $3,490,000.00

Total: $3,490,000.00

Cost Code: A74FG

SUBCLIN 000105:
Funding on SUBCLIN 000105 is initiated as follows:

ACRN: AB

CIN: GFEBS001062245800011

Acctng Data: 097201420150130000183104444441255 R.0012070.9 6100.9000021001

Increase: $500,000.00

Total: $500,000.00

Cost Code: A7444

SUBCLIN 000106:
Funding on SUBCLIN 000106 is initiated as follows:

ACRN: AE

CIN: GFEBS001062245800012

Acctng Data: 097201420150130000018N10337374255 R.0014944.5.5 6100.9000021001

Increase: $1,164,049.00

Total: $1,164,049.00

Cost Code: A74FG

The following have been modified:

5152.232-9000 INCREMENTAL FUNDING (November 2014)(USAMRAA)
a. It is estimated that the total cost to the Government for the full performance of this contract for the period of **5/11/2015** to **11/10/2016** will be $**17,012,744.49**. There have been funds allotted for reimbursement of allowable costs, and applicable fee incurred in the performance of this contract in the amount of only $**12,647,049.00**. It is estimated that such funded amount shall be sufficient to cover allowable expenses for the period **5/11/2015** to **8/10/2016**. The amount of the funds currently allotted may be increased by the Contracting Officer without further concurrence of the contractor. It is estimated that the remaining funds will be made available in accordance with the following schedule:

Funding Source	Year	Amount	Timing
~~DHP core~~	~~FY15~~	~~$3,490,000.00~~	~~Aug 2015~~
~~DHP JWMRP~~	~~FY14~~	~~$500,000.00~~	~~Sep 2015~~
~~DHP core~~	~~FY14~~	~~$1,164,049.00~~	~~Sep 2015~~
DHP core	FY16	$4,365,695.49	Jun-2016

TOTAL	**N/A**	**$9,519,744.49**	**N/A**

b. Pending the availability of additional funds, performance by the contractor shall be governed by the contract clause entitled "Limitation of Funds", FAR 52.232-22.
(End Local Clause)

(End of Summary of Changes)

EXECUTION VERSION

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit 10.6

PURCHASE AND SALE AGREEMENT

between

ACELRX PHARMACEUTICALS, INC.,
as Seller,

and

ARPI LLC,
as Purchaser

Dated as of September 18, 2015

TABLE OF CONTENTS

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

TABLE OF CONTENTS
(continued)

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibits

Schedule

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

PURCHASE AND SALE AGREEMENT

This PURCHASE AND SALE AGREEMENT (this "PSA"), dated as of September 18, 2015, is entered into between AcelRx Pharmaceuticals, Inc., a Delaware corporation ("AcelRx" or the "Seller"), and ARPI LLC, a Delaware limited liability company (the "Purchaser").

W I T N E S S E T H :

WHEREAS, the Seller has the right to receive royalties under the License Agreement (as defined below); and

WHEREAS, the Seller desires to sell, assign, transfer, convey, contribute and grant to the Purchaser, and the Purchaser desires to purchase, acquire and accept from the Seller, the Purchased Assets described herein, upon and subject to the terms and conditions set forth in this PSA.

NOW, THEREFORE, in consideration of the premises and the mutual agreements, representations and warranties set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties covenant and agree as follows:

ARTICLE I

DEFINED TERMS AND RULES OF CONSTRUCTION

Section 1.1 Defined Terms. The following terms, as used herein, shall have the following respective meanings:

"AcelRx Intellectual Property Rights" means the "AcelRx Technology" and the "AcelRx Trademarks" as defined in Sections 1.8 and 1.9 of the License Agreement, respectively.

"AcelRx Financing Statement" means that certain financing statement, dated as of the Closing Date, substantially in the form of Exhibit G-1.

"AcelRx Patents" means the "AcelRx Patents" as defined in Section 1.7 of the License Agreement.

"Actual Knowledge" means, [*].

"Administrative Servicer" has the meaning set forth in Section 5.9(a).

"Administrative Servicing" has the meaning set forth in Section 5.9(a).

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means 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, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"Assigned Patents" means the "Assigned Patents" as defined in Section 1.14 of the License Agreement.

"Applicable Law" means, with respect to any Person, all laws, rules, regulations and orders of Governmental Authorities applicable to such Person or any of its properties or assets.

"Bankruptcy Event" means the occurrence of any of the following in respect of any Person: (a) an admission in writing by such Person of its inability to pay its debts generally or as they become due or a general assignment by such Person for the benefit of creditors; (b) the filing of any petition or answer by such Person seeking to adjudicate itself as bankrupt or insolvent, or seeking for itself any liquidation, winding-up, reorganization, arrangement, adjustment, protection, relief or composition of such Person or its debts under any law relating to bankruptcy, insolvency, receivership, winding-up, liquidation, reorganization, examination, relief of debtors or other similar Applicable Law now or hereafter in effect, or seeking, consenting to or acquiescing in the entry of an order for relief in any case under any such Applicable Law, or the appointment of or taking possession by a receiver, trustee, custodian, liquidator, examiner, assignee, sequestrator or other similar official for such Person or for any substantial part of its property; (c) corporate or other entity action taken by such Person to authorize any of the actions set forth in clause (a) or (b) of this definition; or (d) without the consent or acquiescence of such Person, the entering of an order for relief or approving a petition for relief or reorganization or any other petition seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or other similar relief under any present or future bankruptcy, insolvency or similar Applicable Law, or the filing of any such petition against such Person, or, without the consent or acquiescence of such Person, the entering of an order appointing a trustee, custodian, receiver or liquidator of such Person or of all or any substantial part of the property of such Person, in each case where such petition or order shall remain unstayed or shall not have been stayed or dismissed within thirty (30) days.

"Business Day" means any day that is not (i) a Saturday, Sunday or other day on which commercial banks in San Francisco, California, New York City or Aachen, Germany, are authorized or required by Applicable Law to remain closed or (ii) any of the nine (9) consecutive calendar days beginning on December 24th and continuing through January 1st of each calendar year commencing with the calendar year 2015. For the avoidance of doubt, any reference in this PSA to "days" shall mean calendar days.

"Capital Securities" means, with respect to any Person, all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) of such Person's capital, whether now outstanding or issued after the Closing Date, including common shares, ordinary shares, preferred shares, membership interests or share capital in a limited liability company or other Person, limited or general partnership interests in a partnership, beneficial interests in trusts or any other equivalent of such ownership interest or any options, warrants and other rights to acquire such shares or interests, including rights to allocations and distributions, dividends, redemption payments and liquidation payments.

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"Closing" has the meaning set forth in Section 6.1.

"Closing Date" has the meaning set forth in Section 6.1.

"Code" means the U.S. Internal Revenue Code of 1986, as amended, and the regulations thereunder.

"Company Collection Account" means the account so identified on Exhibit E.

"Confidentiality Agreement" means that certain letter agreement, dated July 30, 2015, by and between the Seller and the Subsequent Purchaser.

"Confidential Information" means, except to the extent not included as Confidential Information in accordance with Section 5.2, this PSA, the other Transaction Documents, Royalty Reports received by the Purchaser after the Closing Date, audit reports received by the Purchaser after the Closing Date pursuant to Section 5.7 of this PSA, and all other reports, notices, correspondence and other documents received by the Purchaser after the Closing Date pursuant to the provisions of this PSA.

"Covered Taxes" means [*].

"Defaulting Party" has the meaning set forth in Section 5.5(d).

"Disputes" has the meaning set forth in Section 3.11(e).

"Dollar" or the sign "$" means United States dollars.

"Excluded Liabilities and Obligations" has the meaning set forth in Section 2.3.

"Excluded Payments" means all amounts due or paid to the Seller or any of its Affiliates other than the Royalties, including all amounts due or paid to the Seller or any of its Affiliates pursuant to Section 7.1, Section 7.2(a), Section 7.2(b) (other than the first four milestone payments thereunder), Section 7.2(c) or Section 7.4 of the License Agreement.

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

"Financing Statements" means the UCC-1 Financing Statements contemplated by Section 2.1(c), collectively.

"First Commercial Sale" means "First Commercial Sale" as defined in Section 1.51 of the License Agreement.

"Field" means "Field" as defined in Section 1.50 of the License Agreement.

"GAAP" has the meaning set forth for "US GAAP" in the definition of "Accounting Standards" in Section 1.2 of the License Agreement.

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"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any country or jurisdiction.

"Grünenthal" means Grünenthal GmbH, a German company.

"Grünenthal Affiliate" means any "Affiliate", as defined in Section 1.3 of the License Agreement, of Grünenthal.

"Hercules Agreement" means that certain Amended and Restated Loan and Security Agreement among the Seller, Hercules Technology II, L.P. and Hercules Technology Growth Capital Inc., dated as of December 16, 2013, as amended from time to time.

"IFRS" has the meaning set forth for "IFRS" in the definition of "Accounting Standards" in Section 1.2 of the License Agreement.

"Initial Bill of Sale" means that certain bill of sale, dated as of the Closing Date, executed by the Seller and the Purchaser, substantially in the form of Exhibit A.

"Joint Patents" means the "Joint Patents" as defined in Section 1.74 of the License Agreement.

"Knowledge" means, [*].

"License Agreement" means that certain Collaboration and License Agreement, dated as of December 16, 2013, between the Seller and the Licensee, as amended from time to time (including by the Licensee Consent and, for amendments entered into following the date hereof, amended in a manner consistent with the terms of this PSA).

"Licensee" means Grünenthal, in its capacity as licensee under the License Agreement.

"Licensee Consent" means that certain letter agreement, dated July 17, 2015, by and between the Seller and the Licensee, regarding, among other things, the transfer of the Purchased Assets to the Purchaser and the further transfer of certain of the Purchased Assets by the Purchaser to the Subsequent Purchaser.

"Licensee Instruction" means the irrevocable notice and direction to the Licensee in the form set forth in Exhibit B.

"Licensed Product" means "Licensed Product" as defined in Section 1.78 of the License Agreement; provided that, if a New Arrangement is entered into by the Seller in accordance with the terms of Section 5.6, "Licensed Product" shall be deemed to refer to the analogous term for "Licensed Product" (as defined in Section 1.78 of the License Agreement) as defined in the New License Agreement.

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"Licensor" means the Seller in its capacity as licensor under the License Agreement.

"Licensor Retained Amounts" means in the aggregate (i) the portion of Royalties payable or paid by the Licensee from time to time, and any interest on late payments thereof, that is in each case in excess of the amounts constituting the Royalties Interest (including interest on late payments thereof), (ii) without duplication of any of the amounts described in clause (i), any amount deemed Licensor Retained Amounts under the third sentence of Section 5.4(b) herein or the third sentence of Section 5.4(b) of the SPSA, and (iii) all payments that constitute Excluded Payments.

"Lien" means any security interest, mortgage, pledge, hypothecation, assignment, deposit arrangement, encumbrance, lien (statutory or otherwise), charge against or interest in property or other priority or preferential arrangement of any kind or nature whatsoever, including any conditional sale or any sale with recourse. For the avoidance of doubt, any right of the Seller described in clauses (b) and (c) of the definition of "Purchased Assets" is not considered a Lien with respect to the Purchased Assets or the License Agreement.

"Loss" means any loss, liability, cost, expense (including reasonable costs and/or expenses of investigation and defense and reasonable attorneys' fees and expenses), charge, fine, penalty, obligation, judgment, award, assessment, claim, Set-off (other than a Permitted Set-off) based on any obligation or amount owing by the Seller or any of its Affiliates that has the effect of reducing amounts required to be paid by the Licensee in respect of the Royalties, or cause of action.

"Manufacture and Supply Agreement" means the Manufacture and Supply Agreement, dated as of December 16, 2013, between the Seller and Grünenthal, as amended from time to time.

"Manufacturing Information" means any and all information relating solely to the manufacture, supply or purchase of property under the Manufacture and Supply Agreement, and the respective rights and obligations of the Seller or the Licensee in respect thereof.

"Manufacturing Matters" means matters relating solely to the manufacture, supply or purchase of Licensed Product or other property, as applicable, under the Manufacture and Supply Agreement.

"Material Adverse Effect" means (a) an adverse effect in any material respect on the legality, validity or enforceability of any of the Transaction Documents, the License Agreement, or the back-up security interest granted pursuant to Section 2.1(d), (b) an adverse effect in any material respect on the right or the ability of the Purchaser or the Seller to perform any of their respective obligations under any of the Transaction Documents or the License Agreement, or to consummate the transactions hereunder or thereunder, (c) an adverse effect in any material respect on the respective rights or remedies of the Seller or the Purchaser under any of the Transaction Documents or under the License Agreement, (d) an adverse effect on the right of the Purchaser to receive the Royalties Interest and the timing, amount or duration of the Royalties Interest (other than de minimus effects), (e) an adverse effect on the Purchased Assets (other than de minimus effects), or (f) an adverse effect in any significant respect on any AcelRx Intellectual Property Rights.

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"Net Sales" means "Net Sales" as defined in Section 1.89 of the License Agreement.

"New Arrangement" has the meaning set forth in Section 5.6(a).

"New License Agreement" has the meaning set forth in Section 5.6(a).

"Other Purchasers" has the meaning set forth in the SPSA.

"Party" shall mean the Seller or the Purchaser, as the context requires, and "Parties" shall mean, together, the Seller and the Purchaser.

"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any intellectual property rights that are Patents.

"Patents" means "Patents" as defined in Section 1.91 of the License Agreement.

"Payment Rights" means the right to receive an amount of Royalties equal to the Royalties Interest, and the right to receive interest payable or paid pursuant to the License Agreement on late payments of amounts constituting the Royalties Interest.

"Permitted Set-off" means any Set-off against royalties or other amounts payable to Seller by Licensee under the License Agreement that is expressly permitted under Sections 7.3(b), 7.3(c) or 7.3(d) of the License Agreement.

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

"PSA" has the meaning set forth in the preamble.

"PSA Triggering Event" has the meaning set forth in the SPSA.

"Purchase Price" has the meaning set forth in Section 2.2.

"Purchased Assets" means, collectively, the Seller's (a) right, title and interest in, to and under the License Agreement or any New Arrangement or New License Agreement to receive an amount of Royalties equal to the Royalties Interest, (b) right, under the License Agreement, to receive reports pursuant to Section 7.5 of the License Agreement (but not to the exclusion of the Seller) or any corresponding provision of any New Arrangement or New License Agreement, (c) right to receive the results of any audit conducted pursuant to Section 8.5 of the License Agreement (but not to the exclusion of the Seller) or any corresponding provision of any New Arrangement or New License Agreement, (d) right to receive interest payable or paid pursuant to the License Agreement in respect of late payments of amounts constituting the Royalties Interest or any corresponding provision of any New Arrangement or New License Agreement and (e) rights to enforce the receipt of payment and the payment and performance by the Licensee of the obligations set forth in the License Agreement or any New Arrangement or New License Agreement corresponding to the rights described in subclauses (a) through (d) above, in accordance with the License Agreement (or any New Arrangement or New License Agreement, as applicable), this PSA and the Servicing Agreement. The Purchased Assets do not include any Licensor Retained Amounts.

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"Purchased Interest" has the meaning set forth in the SPSA.

"Purchaser" has the meaning set forth in the preamble.

"Purchaser Account" has the meaning set forth in Section 5.4(c).

"Purchaser Indemnified Party" has the meaning set forth in Section 7.1.

"Purchaser Portion" means (a) with respect to (i) all Royalties other than the first four milestone payments under Section 7.2(b) of the License Agreement and (ii) all other related amounts included in the definition of "Royalties" with respect to the Royalties described in clause (i), seventy-five percent (75%) of a specified amount that is payable or has been paid, and (b) solely with respect to Royalties that consist of the first four milestone payments under Section 7.2(b) of the License Agreement and all other related amounts included in the definition of "Royalties" with respect to such Royalties, eighty percent (80%) of a specified amount that is payable or has been paid.

"Regulatory Agency" means a Governmental Authority with responsibility for the approval of the marketing and sale of pharmaceuticals or other regulation of pharmaceuticals in any country or jurisdiction.

"Regulatory Approvals" means, collectively, all regulatory approvals, registrations, certificates, authorizations, permits and supplements thereto, as well as associated materials (including the product dossier) pursuant to which the Licensed Product may be marketed, sold and distributed by the Licensee or any Sublicensee in a jurisdiction, issued by the appropriate Regulatory Agency.

"Representatives" has the meaning set forth in Section 5.2(b).

"Royalties" means (a) all amounts due, owed, accrued, payable or paid to the Licensor under Section 7.2(b) (solely with respect to the first four milestone payments thereunder), Section 7.3 and the last sentence of Section 10.3(b) of the License Agreement during the Royalty Term, giving effect to all Permitted Set-offs, and including (i) all underpayments due, owed, accrued, payable or paid to the Licensor with respect to such amounts under Section 8.5 of the License Agreement and (ii) all amounts due, owed, accrued, payable or paid to the Licensor in lieu of the amounts described in this clause (a), including amounts due in respect of a New Arrangement, if any; (b) all "accounts" (as defined under the UCC) evidencing the rights to the payments and amounts described in this definition; and (c) all "proceeds" (as defined under the UCC) of any of the foregoing. [*] For the avoidance of doubt, Royalties shall (x) include all amounts due, owed, accrued, payable or paid to the Licensor or any of its Affiliates by one or more licensees or sublicensees under any New Arrangement that are in lieu of the amounts described in clause (a) above and (y) exclude the amount of any and all Excluded Payments.

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"Royalties Commencement Date" means the date after the Closing Date of the First Commercial Sale in the first country in the Territory in which such First Commercial Sale occurs.

"Royalties Interest" means the Purchaser Portion of Royalties.

"Royalty Reduction" has the meaning set forth in Section 3.13(f); provided, however, that "Royalty Reduction" shall not include any Set-off.

"Royalty Reports" means the "Royalty Reports" as defined in Section 7.5 of the License Agreement.

"Royalty Term" means the period commencing on the Royalties Commencement Date, and ending on the last day of the last to expire "Royalty Term" as defined in Section 7.3(e) of the License Agreement.

"SACA" has the meaning set forth in the SPSA.

"SEC" means the U.S. Securities and Exchange Commission.

"Second Amendment" means that certain Consent And Amendment No. 2 To Amended And Restated Loan And Security Agreement, dated as of September 18, 2015, among the Seller, Hercules Technology II, L.P. and Hercules Capital Funding Trust 2014-1.

"Seller" has the meaning set forth in the preamble.

"Seller Account" has the meaning set forth in Section 5.4(e).

"Seller Indemnified Party" has the meaning set forth in Section 7.2.

"Servicer Report" means any report prepared by the Seller in its capacity as Servicer under the Servicing Agreement and delivered to the Purchaser or the Subsequent Purchaser under the Servicing Agreement (and, for purposes of clarity, excluding any reports pursuant to Section 7.5 of the License Agreement or any corresponding provision of any New Arrangement or New License Agreement and any report on the results of any audit conducted pursuant to Section 8.5 of the License Agreement or any corresponding provision of any New Arrangement or New License Agreement).

"Servicing Agreement" means the Servicing Agreement, dated as of the date hereof, among Seller, Purchaser and the Subsequent Purchaser.

"Set-off" means any set-off, off-set, charge, reduction or similar deduction; provided, however, that "Set-off" shall not include any Royalty Reduction.

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"SPSA" means the Subsequent Purchase and Sale Agreement, dated as of the date hereof, between the Purchaser (as seller of certain of the Purchased Assets thereunder) and the Subsequent Purchaser.

"Sublicensee" means any "Sublicensee" as defined in Section 1.108 of the License Agreement.

"Subsequent Bill of Sale" means that certain bill of sale, dated as of the Closing Date, executed by the Purchaser and the Subsequent Purchaser, substantially in the form of Exhibit A to the SPSA.

"Subsequent Purchaser" means the purchaser of the Purchased Interest identified in the SPSA.

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, sales, use, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

"Tax Return" means any report, return, form (including elections, declarations, statements, amendments, claims for refund, schedules, information returns or attachments thereto) or other information supplied or required to be supplied to a Governmental Authority with respect to Taxes.

"Territory" means "Territory" as defined under Section 1.111 of the License Agreement, but including Australia only for so long as Australia remains part of the Territory pursuant to the License Agreement.

"Third Party" means any Person that is not a Party.

"Third Party Claim" means any claim, action, suit or proceeding by a Third Party, including any investigation by any Governmental Authority.

"Transaction Documents" means this PSA, the Initial Bill of Sale, the Licensee Instruction, the SPSA, the Subsequent Bill of Sale, the Servicing Agreement and the SACA.

"Transfer Taxes" shall mean all excise, sales, use, value added, transfer (including real property transfer), withholding, capital gains, transfer taxes, stamp, documentary, filing, recordation, registration and other similar taxes, together with any interest, additions, fines, costs or penalties thereon and any interest in respect of any additions, fines, costs or penalties.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided, that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(d) is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of Delaware, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of this PSA and any financing statement relating to such perfection or effect of perfection or non-perfection.

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"U.S." or "United States" means the United States of America, its 50 states, each territory thereof and the District of Columbia.

"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

Section 1.2 Rules of Construction. (a) Unless the context otherwise requires, in this PSA:

(i) a term has the meaning assigned to it and an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP or IFRS, as the case may be, as applicable to the Seller or the Licensee;

(ii) unless otherwise defined, all terms that are defined in the UCC shall have the meanings stated in the UCC;

(iii) words of the masculine, feminine or neuter gender shall mean and include the correlative words of other genders;

(iv) the terms "include," "including" and similar terms shall be construed as if followed by the phrase "without limitation";

(v) unless otherwise specified, references to a contract, document or agreement include references to such contract, document or agreement as from time to time amended, restated, reformed, supplemented or otherwise modified in accordance with its terms (subject to any restrictions on such amendments, restatements, reformations, supplements or modifications set forth herein or in any of the other Transaction Documents), and include any annexes, exhibits and schedules hereto or thereto, as the case may be; provided, however, that, unless otherwise specified, terms defined in Section 1.1 by reference to any other contract or agreement shall be deemed to refer to such contract or agreement as in effect on the date of this PSA;

(vi) any reference to any Person shall be construed to include such Person's successors and permitted assigns (subject to any restrictions on assignment, transfer or delegation set forth herein or in any of the other Transaction Documents) and any reference to a Person in a particular capacity excludes such Person in other capacities;

(vii) references to any Applicable Law shall include such Applicable Law as from time to time in effect, including any amendment, modification, codification, replacement, or reenactment thereof or any substitution therefor;

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(viii) the word "will" shall be construed to have the same meaning and effect as the word "shall";

(ix) the words "hereof," "herein," "hereunder" and similar terms shall refer to this PSA as a whole and not to any particular provision hereof, and Article, Section and Exhibit references herein are references to Articles and Sections of, and Exhibits to, this PSA unless otherwise specified;

(x) the definitions of terms shall apply equally to the singular and plural forms of the terms defined;

(xi) in the computation of a period of time from a specified date to a later specified date, the word "from" means "from and including" and each of the words "to" and "until" means "to but excluding";

(xii) where any payment is to be made, any funds are to be applied or any calculation is to be made under this PSA on a day that is not a Business Day, unless this PSA otherwise provides, such payment shall be made, such funds shall be applied and such calculation shall be made on the succeeding Business Day, and payments shall be adjusted accordingly; and

(xiii) any reference to a term that is defined by reference to its meaning in the License Agreement shall refer to such term's meaning in such License Agreement as in existence on the date hereof (and not to any new, substituted or amended version thereof effected after the date hereof) and shall incorporate defined terms referenced in such meaning in the License Agreement.

(b) The provisions of this PSA shall be construed according to their fair meaning and neither for nor against either Party irrespective of which Party caused such provisions to be drafted. Each Party acknowledges that it has been represented by an attorney in connection with the preparation and execution of this PSA and the other Transaction Documents.

ARTICLE II

PURCHASE AND SALE OF THE PURCHASED ASSETS

Section 2.1 **Purchase and Sale**. (a) Subject to the terms and conditions of this PSA, on the Closing Date, the Seller hereby sells, assigns, transfers, conveys, contributes and grants to the Purchaser, and the Purchaser hereby purchases, acquires and accepts from the Seller, all of the Seller's right, title and interest in and to the Purchased Assets, free and clear of any and all Liens, other than the Liens created in favor of the Purchaser under the Transaction Documents.

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(b) The Seller and the Purchaser expressly intend and agree that (other than for U.S. federal income tax purposes) the sale, assignment, transfer, conveyance, contribution and grant of the Purchased Assets under this PSA shall be, and is, a true, complete, absolute and irrevocable assignment and sale by the Seller to the Purchaser of the Purchased Assets that is absolute and irrevocable and that such assignment and sale shall provide the Purchaser with the full benefits of ownership of the Purchased Assets. For U.S. federal income tax purposes, the assignment and sale of the Purchased Assets shall be treated as a transfer of the Purchased Assets to a disregarded entity (within the meaning of Treasury Regulations Section 301.7704-3(b)(ii)) subsidiary of Seller, which transfer has no U.S. federal income tax significance. Neither the Seller nor the Purchaser intends the transactions contemplated hereby to be, or for any purpose be characterized as, a loan from the Purchaser to the Seller or a pledge or assignment of a security interest as collateral for a loan. The Seller waives any right to contest or otherwise assert that this PSA does not constitute a true, complete, absolute and irrevocable sale and assignment by the Seller to the Purchaser of the Purchased Assets under Applicable Law, which waiver shall be enforceable against the Seller in any Bankruptcy Event in respect of the Seller. The sale, assignment, transfer, conveyance, contribution and grant of the Purchased Assets shall be reflected on the Seller's financial statements and other records as a sale of assets to the Purchaser (except to the extent GAAP or the rules of the SEC require otherwise with respect to the Seller's consolidated financial statements).

(c) The Seller hereby authorizes the Purchaser to record and file, and consents to the Purchaser recording and filing, at the Purchaser's sole cost and expense, (i) a UCC-1 Financing Statement, in the form attached as Exhibit G-1, in the appropriate filing offices under the UCC (and continuation statements with respect to such financing statements when applicable), and amendments thereto, in such manner and in such jurisdictions as are necessary or appropriate to evidence or perfect the sale, assignment, transfer, conveyance, contribution and grant by the Seller to the Purchaser, and the purchase, acquisition and acceptance by the Purchaser from the Seller, of the Purchased Assets and (ii) a UCC-1 Financing Statement, in the form attached as Exhibit G-2, to perfect the security interest in the Purchased Assets granted by the Seller to the Purchaser pursuant to Section 2.1(d). Further, at any time and from time to time, the Purchaser shall be entitled to authenticate on behalf and in the name of the Seller, file and/or record any or all such financing statements, instruments and documents, and to take all such other actions, as the Purchaser may deem appropriate to perfect and to maintain perfected the security interest granted by the Seller to the Purchaser pursuant to Section 2.1(d).

(d) Notwithstanding the express intent of the Seller and the Purchaser, to the extent that such sale, assignment, transfer, conveyance, contribution and grant does not effect a true, complete, absolute and irrevocable sale and assignment by the Seller to the Purchaser of the Purchased Assets (other than for U.S. federal income tax purposes) as determined by competent judicial authority (a "Recharacterization Event"), the Seller hereby assigns, conveys, contributes, grants and pledges to the Purchaser, as security for its obligations created hereunder in the event a Recharacterization Event occurs, a first priority continuing security interest in and to all of the Seller's right, title and interest in, to and under the following, in each case, whether now owned or existing or hereafter acquired or arising, and wherever located: (i) the Purchased Assets and (ii) any and all additions and accessions to any of the Purchased Assets, all improvements to any of the Purchased Assets, all substitutions and replacements for any of the Purchased Assets and all products and proceeds of any of the Purchased Assets (but excluding, in all cases, any and all Licensor Retained Amounts), to secure the performance of all of the Seller's obligations under this PSA. The Parties hereto agree that this PSA shall constitute a security agreement. At the request of the Purchaser from time to time after a Recharacterization Event, the Seller shall promptly and duly execute and deliver, or cause to be duly executed and delivered, to the Purchaser all financing statements (including, without limitation, any amendments and continuations) and other instruments and documents in form and substance satisfactory to the Purchaser as shall be necessary or desirable to fully perfect, when filed and/or recorded, and continue and preserve the security interest granted pursuant to this Section 2.1(d) (which, for purposes of clarity, shall not require the Seller to make any request to, or to take any action with respect to, Grünenthal) as well as the priority thereof.

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Section 2.2 **Payment of Purchase Price**. In full consideration for the sale, assignment, transfer, conveyance, contribution and grant of the Purchased Assets on the Closing Date, and subject to the terms and conditions set forth herein, the Purchaser (a) on or prior to the Closing Date shall have issued to the Seller all of the authorized shares of Capital Securities of the Purchaser and (b) on the Closing Date shall pay (or cause to be paid) to the Seller, or the Seller's designee, at the Closing, the aggregate sum of Sixty-Five Million Dollars ($65,000,000), in immediately available funds by wire transfer to the Seller Account or such other account or accounts as the Seller may direct the Purchaser at least two (2) Business Days prior to the Closing (the "Purchase Price").

Section 2.3 **No Assumed Obligations**. Notwithstanding any provision in this PSA or any other writing to the contrary, the Purchaser is purchasing, acquiring and accepting only the Purchased Assets and is not assuming any liability or obligation of the Seller or any of the Seller's Affiliates of whatever nature, whether presently in existence or arising or asserted hereafter, including (a) any liability or obligation of the Seller under the License Agreement or the Manufacture and Supply Agreement and (b) any liability of the Seller or any direct or indirect owner of the Seller for Taxes, including any Taxes that may be imposed or assessed as a result of any transaction pursuant to the SPSA and/or the PSA, (i) other than the Purchaser's share of Transfer Taxes as provided in Section 5.8(b), and (ii) provided that any Taxes that reduce Royalties pursuant to the proviso in clause (c) of the definition of "Royalties" shall not be subject to indemnification by Seller pursuant to Section 7.1. All such liabilities and obligations shall be retained by, and remain liabilities and obligations of, the Seller or the Seller's Affiliates, as the case may be (the "Excluded Liabilities and Obligations").

Section 2.4 **Excluded Assets**. The Purchaser does not, by purchase, acquisition or acceptance of the right, title or interest granted hereunder or otherwise pursuant to any of the Transaction Documents, purchase, acquire or accept any assets or contract rights of the Seller under the License Agreement (including the Excluded Payments and the Licensor Retained Amounts) or any other agreement or instrument related thereto, other than the Purchased Assets, or any other assets of the Seller.

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ARTICLE III

REPRESENTATIONS AND WARRANTIES OF THE SELLER

The Seller hereby represents and warrants to the Purchaser, as of the date hereof, as follows:

Section 3.1 **Organization**. The Seller is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and has all corporate power and authority, and all licenses, permits, franchises, authorizations, consents and approvals of all Governmental Authorities, required to own its property and conduct its business, as now conducted (including the execution and delivery of, and the performance under, the Transaction Documents to which it is a party), and to exercise its rights and to perform its obligations under the License Agreement. The Seller is duly licensed or qualified to transact business and is in good standing in every jurisdiction in which such license, qualification or good standing is required by Applicable Law (except where the failure to be so qualified or in good standing would not reasonably be expected to result in a Material Adverse Effect).

Section 3.2 **No Conflicts**. (a) The execution and delivery by the Seller of any of the Transaction Documents to which it is a party, the performance by the Seller of its obligations contemplated hereunder or thereunder or the consummation by the Seller of the transactions contemplated hereby or thereby do not and will not (i) contravene, conflict with, violate or result in a breach of any term or provision of any of the organizational documents of the Seller, (ii) contravene, conflict with, violate or result in a breach of, or give any Governmental Authority the right to exercise any remedy or obtain any relief under, any Applicable Law or any judgment, order, writ, decree, permit or license of any Governmental Authority to which the Seller or any of its subsidiaries or any of their respective assets or properties may be subject or bound, (iii) contravene, conflict with, result in a breach or violation of, constitute a default (with or without notice or lapse of time, or both) under, require prepayment under, or give any Person the right to exercise any remedy or obtain any additional rights under, or accelerate the maturity or performance of, or payment under, or cancel or terminate (including any additional right of termination, cancellation or acceleration), (A) except as would not reasonably be expected to result in a Material Adverse Effect, any contract, agreement, indenture, lease, license, deed, commitment, obligation or instrument to which the Seller or any of its subsidiaries is a party or by which the Seller or any of its subsidiaries or any of their respective assets or properties is bound or committed (other than the License Agreement and the Hercules Agreement) or (B) the License Agreement, or (iv) except as provided in any of the Transaction Documents, result in or require the creation or imposition of any Lien on the License Agreement, the Licensed Product, the Purchased Assets, or any AcelRx Intellectual Property Rights.

(b) Except for Grünenthal's rights under the License Agreement, Liens relating to the Hercules Agreement that the Seller represents and warrants will be released concurrently with the Closing, and Liens created under the Transaction Documents, the Seller has not granted, nor does there exist, based on any action taken or failed to be taken by the Seller, any Lien on or relating to the License Agreement or the Licensed Product. Except for Liens created under the Transaction Documents, and taking into account the release of the Liens relating to the Hercules Agreement that the Seller represents and warrants shall occur concurrently with the Closing, the Seller has not granted, nor does there exist, including, based on any action taken or failed to be taken by the Seller, any Lien on or relating to the Transaction Documents, Purchased Assets or any AcelRx Intellectual Property Rights (other than the licenses to Grünenthal under the License Agreement).

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Section 3.3 **Authorization**. The Seller has all necessary corporate power and authority to execute and deliver the Transaction Documents to which it is a party, to perform its obligations hereunder and thereunder and to consummate the transactions contemplated hereby and thereby. The execution and delivery of each of the Transaction Documents to which it is a party and the performance by the Seller of its obligations hereunder and thereunder have been duly authorized by all necessary corporate action on the part of the Seller. Each of the Transaction Documents to which it is a party has been duly executed and delivered by an authorized officer of the Seller. Each of the Transaction Documents to which it is a party constitutes the legal, valid and binding obligation of the Seller, enforceable against the Seller in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally and general equitable principles.

Section 3.4 **Ownership**. The Seller is the exclusive (other than to the extent set forth in clauses (b) and (c) of the definition of "Purchased Assets") owner of the entire right, title (legal and equitable) and interest in, to and under the Purchased Assets and has good and valid title thereto, free and clear of all Liens taking into account the release of the Liens relating to the Hercules Agreement that the Seller represents and warrants shall occur concurrently with the Closing. The Purchased Assets sold, assigned, transferred, contributed, granted, and conveyed to the Purchaser on the Closing Date have not been pledged, sold, assigned, transferred, conveyed or granted by the Seller to any other Person (other than to the extent set forth in clauses (b) and (c) of the definition of "Purchased Assets"), taking into account the release of the Liens relating to the Hercules Agreement that the Seller represents and warrants shall occur concurrently with the Closing. The Seller has full right to sell, assign, transfer, contribute, grant and convey the Purchased Assets to the Purchaser. Upon the sale, assignment, transfer, grant, contribution and conveyance by the Seller of the Purchased Assets to the Purchaser under this PSA, the Purchaser shall acquire good, valid and marketable title to the Purchased Assets free and clear of all Liens, other than Liens in favor of the Purchaser, and shall be the exclusive owner of the Purchased Assets (other than to the extent set forth in clauses (b) and (c) of the definition of "Purchased Assets").

Section 3.5 **Governmental and Third Party Authorizations**. The execution and delivery by the Seller of the Transaction Documents to which it is a party, the performance by the Seller of its obligations hereunder and thereunder and the consummation by the Seller of the transactions contemplated hereby and thereby do not require any consent, approval, license, order, authorization or declaration from, notice to, action or registration by, or filing with, any Governmental Authority or any other Person, except for (i) the filing of UCC financing statements, (ii) the notice to the Licensee contained in the Licensee Instruction, (iii) the Licensee Consent, (iv) the Second Amendment and (v) applicable filings with the SEC.

Section 3.6 **No Litigation**. (a) Except as otherwise set forth in Section 3.11(e) and Section 3.11(f), there is no action, suit, arbitration proceeding, claim, demand, citation, summons, subpoena or other proceeding (whether civil, criminal, administrative, regulatory or informal) pending or, to the Knowledge of the Seller, threatened by or against the Seller or any of its subsidiaries, or, to the Knowledge of the Seller, pending or threatened by or against the Licensee, any Licensee Affiliate or any Sublicensee, relating to or affecting the License Agreement, the Licensed Product, the Purchased Assets or any AcelRx Intellectual Property Rights (including, in each case, under the License Agreement), at law or in equity, in each case, that would reasonably be expected to result in a Material Adverse Effect.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(b) Except as otherwise set forth in Section 3.11(e) and Section 3.11(f), there is no inquiry or investigation (whether civil, criminal, administrative, regulatory, investigative or informal) by or before a Governmental Authority pending or, to the Knowledge of the Seller, threatened against the Seller or any of its subsidiaries, or, to the Knowledge of the Seller, pending or threatened by or against the Licensee, any Licensee Affiliate or any Sublicensee, relating to or affecting the License Agreement, the Licensed Product, the Purchased Assets or any AcelRx Intellectual Property Rights (including, in each case, under the License Agreement), that, in each case, (i) if adversely determined, would reasonably be expected to result in a Material Adverse Effect, or (ii) challenges or seeks to prevent, enjoin, alter, delay, make illegal or otherwise interfere with the consummation of any of the transactions contemplated by any of the Transaction Documents.

Section 3.7 Solvency. Immediately after giving effect to the consummation of the transactions contemplated by the Transaction Documents and the application of the proceeds therefrom, (a) the Seller will be able to realize upon its assets and pay its debts, liabilities and other obligations, including contingent obligations, as they mature, (b) the Seller will not have unreasonably small capital with which to engage in its business, as now conducted and as proposed to be conducted following the Closing Date, (c) the Seller does not have any present plans or intentions to incur debts or other obligations or liabilities beyond its ability to pay such debts or other obligations or liabilities, including contingent liabilities, as they become absolute and matured, (d) the Seller will not have existing debts that cannot be paid from the present saleable value of its property, and (e) the Seller will not be or have become insolvent within the meaning of any applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws generally affecting creditors' rights or by equitable principles and will not have become subject to any Bankruptcy Event. For purposes of this Section 3.7, the amount of all contingent obligations at any time shall be computed as the amount that, in light of all facts and circumstances existing at such time, can reasonably be expected to become an actual or matured liability.

Section 3.8 Tax Matters. To the extent a breach or inaccuracy of any of the following could result in a liability of the Purchaser to any Person, whether as a result of Applicable Law, contract, or otherwise:

(a) The Seller has timely filed (or caused to be timely filed) all material Tax Returns required by Applicable Law to have been filed by it and has paid or remitted all Taxes required to be paid by it when the same have become due. All Tax Returns filed by the Seller (or on its behalf) have been true, correct and complete. There is no outstanding or threatened action, claim or other examination or proceeding with respect to Taxes of the Seller or its assets (including with respect to the Purchased Assets). There are no Taxes of the Seller that form or could form the basis for a Lien on any of its assets (including the Royalties), except any such Taxes that are not yet due or delinquent or are being diligently contested in good faith by appropriate proceedings and for which adequate reserves in accordance with GAAP have been set aside on its books.

(b) Seller is not a party to any Tax sharing, Tax indemnity or Tax allocation agreement or any other express or implied agreement to indemnify any other Person for Taxes that would, in any manner, bind, obligate or restrict Purchaser.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Section 3.9 **No Brokers' Fees**. The Seller has not taken any action that would entitle any person or entity other than Credit Suisse Securities (USA) LLC, whose fees will be paid by the Seller, to any commission or broker's fee in connection with the transactions contemplated by any Transaction Document.

Section 3.10 **Compliance with Laws**. The Seller (a) has not violated, is not in violation of, has not been given notice of any violation of, and, to the Knowledge of the Seller, is not under investigation with respect to nor has been threatened to be charged with, any violation of, any Applicable Law or any judgment, order, writ, decree, injunction, stipulation, consent order, permit or license granted, issued or entered by any Governmental Authority or (b) is not subject to any judgment, order, writ, decree, injunction, stipulation, consent order, permit or license granted, issued or entered by any Governmental Authority, in each case with respect to clause (a) and (b) above, that would reasonably be expected to result in a Material Adverse Effect. The Seller and any subsidiary of the Seller is in compliance with the requirements of all Applicable Laws, a breach of any of which would reasonably be expected to result in a Material Adverse Effect.

Section 3.11 **Intellectual Property Matters**. Except as set forth on Schedule 3.11:

(a) Exhibit C to this PSA sets forth an accurate and complete list of all AcelRx Patents and Assigned Patents. There are no Joint Patents. For each AcelRx Patent and Assigned Patent, Exhibit C accurately sets forth (i) the countries or jurisdictions in which such Patent is pending, allowed, granted, or issued, (ii) the patent number or application serial number of such Patent, as applicable, (iii) the status of such Patent, (iv) the issue date of such Patent, as applicable, (v) as of the date hereof, the expected scheduled expiration date of each issued Patent to the extent an expiration date can be calculated and (vi) as of the date hereof, the scheduled expiration date of each Patent issuing from any pending patent applications to the extent an expiration date can be calculated, assuming a Patent issues thereon.

(b) Except as indicated in Exhibit C, the AcelRx Patents and Assigned Patents are subsisting and, to the Knowledge of the Seller, no AcelRx Patents or Assigned Patents listed in Exhibit C have lapsed, been abandoned or cancelled. To the Knowledge of the Seller, except as otherwise set forth in Exhibit C, each AcelRx Patent and Assigned Patent granted by the European Patent Office has been properly validated and maintained in each designated country noted, and such validated rights in each designated country have not lapsed, been abandoned or cancelled. To the Knowledge of the Seller, there are no Liens on or applicable to the AcelRx Patents or their use in the Territory (other than the licenses in favor of Grünenthal under the License Agreement). Except for the license granted by the Seller to the Licensee under the License Agreement, there are no licenses, sublicenses, options or other rights with respect to the AcelRx Patents that have been granted by AcelRx to any Third Party. Subject to the licenses in favor of Grünenthal under the License Agreement, the Seller is the exclusive owner of the entire right, title (legal and equitable) and interest in, to and under the AcelRx Patents with respect to their application to the Territory and each country in the Territory.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(c) The Seller has duly and legally filed or applied for registration of and, to the Knowledge of the Seller, maintained its ownership interest in the AcelRx Patents, including the AcelRx Patents listed on Exhibit C to this PSA, in the appropriate agencies and in the jurisdictions listed on Exhibit C. To the Knowledge of the Seller, there are currently no unpaid maintenance or renewal fees payable by the Seller to any Third Party that are overdue or will be overdue within 30 days of the Closing Date. To the Knowledge of the Seller, each individual associated with the filing and prosecution of the AcelRx Patents, including the named inventors of the AcelRx Patents, has complied in all material respects with all applicable duties of candor and good faith in dealing with any Patent Office regarding the AcelRx Patents, including any duty to disclose to any Patent Office all information known by such inventors to be material to the patentability of the AcelRx Patents (including any relevant prior art), in each case, in those jurisdictions where such duties exist.

(d) Subsequent to the issuance of each AcelRx Patent (but, for purposes of clarity, not with respect to any prior or pending Patent application) and up to and including the date hereof, neither the Seller nor, to the Knowledge of the Seller, the Licensee, has filed any disclaimer or made or permitted any other voluntary reduction in the scope of such AcelRx Patent.

(e) The Seller has not been involved in any opposition, revocation, nullity, post-grant or other proceedings involving any of the AcelRx Patents. There is no pending or, to the Knowledge of the Seller, threatened opposition, revocation, nullity, post-grant or other proceedings, injunction, claim, suit, action, citation, summon, subpoena, hearing, inquiry, investigation, complaint, arbitration, mediation, demand, decree or other dispute, disagreement, proceeding or claim (collectively, "Disputes") challenging the legality, validity, scope, enforceability or ownership of or otherwise relating to any of the AcelRx Patents or that would reasonably be expected to give rise to any Royalty Reduction or any Set-off against the payments due to the Seller under the License Agreement. There are no Disputes pending or, to the Knowledge of the Seller, threatened involving the Seller and the Licensed Product or, to the Knowledge of the Seller, involving any other Person (including Licensee) and relating to the Licensed Product. To the Knowledge of Seller, none of the AcelRx Patents nor the Licensed Product is subject to any outstanding injunction, judgment, order, decree, ruling, settlement or other disposition of a Dispute.

(f) There is no pending action, suit, proceeding, investigation or claim and, to the Knowledge of the Seller, there is no threatened action, suit, proceeding, investigation or claim to which (A) the Seller, or (B) to the Knowledge of the Seller, the Licensee or any Sublicensee (in the case of this clause (B), solely to the extent any such action, suit, proceeding, investigation or claim relates to the practice of the AcelRx Patents under the License Agreement) is a party, that claims that the manufacture, use, marketing, sale, offer for sale, importation or distribution of the Licensed Product infringes on any patent or other intellectual property rights of any Third Party or constitute misappropriation of any other Person's trade secrets or other intellectual property rights. To the Knowledge of the Seller, there are no issued Patents owned by any Third Party that would reasonably be expected to be infringed by the manufacture, use, marketing, sale, offer for sale, importation or distribution of the Licensed Product in the any country in the Territory and, to the Knowledge of the Seller, there are no pending patent applications owned by any Third Party containing claims that could reasonably be expected to issue in a granted patent that would be infringed by the manufacture, use, marketing, sale, offer for sale, importation or distribution of the Licensed Product in any country in the Territory.

(g) To the Knowledge of the Seller, there is no Person infringing any of the AcelRx Patents, nor has the Seller received any notice under the License Agreement of infringement of any of the AcelRx Patents. To the Knowledge of the Seller, no claims of any AcelRx Patent are being asserted by the Licensee or any other Person in any action, suit or proceeding of any kind.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(h) To the Knowledge of the Seller, each AcelRx Patent and each Assigned Patent granted by the European Patent Office includes at least one valid and enforceable claim that covers the Licensed Product and, to the Knowledge of the Seller, is valid and enforceable in each of the designated countries identified in Exhibit C in which such Patents have been validated.

(i) Except for the AcelRx Patents, neither the Seller nor any of its Affiliates owns or controls any Patents that, absent a license, would be infringed by the manufacture, use, sale, offer for sale or importation of the Licensed Product in the Territory.

(j) The Seller has not received and is not otherwise in possession of any written legal opinion (which, for purposes of clarity, [*]) with respect to any Third Party intellectual property rights relating to any AcelRx Patent or the Licensed Product, including any freedom-to-operate, product clearance, patentability or right-to-use opinion.

Section 3.12 Regulatory Approval, Manufacturing and Marketing. The Seller is and, to the Knowledge of the Seller, the Licensee is in compliance in all material respects with their respective obligations to develop the Licensed Product, and to seek and obtain and maintain Regulatory Approval for the Licensed Product pursuant to the License Agreement.

Section 3.13 Related Agreements. (a) Other than the Transaction Documents, the Licensee Consent, the License Agreement, the Confidentiality Agreement, the Manufacture and Supply Agreement, the agreements identified on Exhibit 1.83 to the License Agreement, and, taking into account the release of the Liens relating to the Hercules Agreement that the Seller represents and warrants shall occur concurrently with the Closing, solely with respect to clause (ii) below, the Hercules Agreement, there is no contract, agreement or other arrangement to which the Seller is a party or by which its assets or properties is bound or committed (i) that creates a Lien on, affects or otherwise relates to the Purchased Assets or the License Agreement, or (ii) for which breach, nonperformance, termination, cancellation or failure to renew would reasonably be expected to result in a Material Adverse Effect.

(b) The Seller has provided to the Purchaser a true, correct and complete copy of the License Agreement and the Manufacture and Supply Agreement. The Seller has provided to the Purchaser true, correct and complete copies of (i) any confidentiality agreement relating to the License Agreement between the Seller or any of its Affiliates and the Licensee and (ii) any Royalty Reports delivered to the Seller by the Licensee pursuant to Section 7.5 of the License Agreement.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(c) The License Agreement is in full force and effect and is the legal, valid and binding obligation of the Seller and the Licensee, enforceable against the Seller and the Licensee in accordance with its terms, subject, as to enforceability, to bankruptcy, insolvency, reorganization, moratorium or similar laws now or hereafter in effect relating to or affecting creditors' rights generally, and general equitable principles. The execution and delivery of, and performance of obligations under, the License Agreement were and are within the powers of the Seller and, to the Knowledge of the Seller, the Licensee. The License Agreement was duly authorized by all necessary action on the part of, and validly executed and delivered by, the Seller and, to the Knowledge of the Seller, the Licensee. The Seller is not in breach or violation of or in default under the License Agreement or the Manufacture and Supply Agreement, and has not previously been in breach or violation of or in default under the License Agreement or the Manufacture and Supply Agreement. To the Knowledge of the Seller, the Licensee is not in breach or violation of or in default under, and has not previously been in breach or violation of or in default under, the License Agreement or the Manufacture and Supply Agreement. To the Knowledge of the Seller, no event or circumstance has occurred that, upon notice or the passage of time, or both, would reasonably be expected to constitute or give rise to any breach or default in any material respect in the performance of the License Agreement or the Manufacture and Supply Agreement by the Seller or, to the Knowledge of the Seller, the Licensee. Immediately following the execution and delivery of the Transaction Documents and the Closing, the License Agreement will continue in full force and effect, without modification, except as expressly set forth in the Licensee Instruction relating thereto as specified in the Transaction Documents, and shall remain the legal, valid and binding obligation of the Seller and, to the Knowledge of the Seller, the Licensee, enforceable against the Seller and, to the Knowledge of the Seller, the Licensee in accordance with its terms, subject, as to enforceability, to bankruptcy, insolvency, reorganization, moratorium or similar laws now or hereafter in effect relating to or affecting creditors' rights generally, and general equitable principles. The Licensee has not notified the Seller in writing or otherwise that it believes the transactions contemplated by the Transaction Documents will result in a breach, violation, cancellation or termination of, constitute a default under, or give the Licensee the right to exercise any remedy or obtain any additional rights under, the License Agreement. Except as set forth in the Licensee Consent and the Hercules Agreement, and excluding the Licensee Instruction, the Financing Statements and any applicable filings that will be made with the SEC, neither the Licensee nor any other Person (as a result of any agreement or other action of the Seller) has any right to consent to, approve, review or receive notice of the execution and delivery of the Transaction Documents by the Seller and the Closing.

(d) The Seller has not waived any rights or defaults under the License Agreement or released the Licensee, in whole or in part, from any of its obligations under the License Agreement. Neither the Seller nor the Licensee has agreed to amend or waive any provision of the License Agreement, and the Seller has not received or submitted any proposal to do so and, to the Knowledge of the Seller, the Licensee has not made, and does not intend to make, any proposal to do so.

(e) No event has occurred that would give the Licensee the right to terminate the License Agreement or cease paying Royalties thereunder (it being understood that the Licensee may terminate the License Agreement without cause by providing 180 days note to the Licensee). To the Knowledge of the Seller, no event has occurred that would give the Seller the right to terminate the License Agreement. The Seller has not received any notice of an intention by the Licensee to terminate or breach the License Agreement, in whole or in part, or by the Licensee or any other Person challenging the legality, validity or enforceability of any of the License Agreement or the obligation to pay the Royalties under the License Agreement, or asserting or alleging that the Seller is currently in default of its obligations under the License Agreement. The Seller has no intention of terminating the License Agreement and has not given the Licensee any notice of termination or breach of the License Agreement, in whole or in part, or challenging the legality, validity or enforceability thereof.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(f) Except as provided in the License Agreement and the Manufacture and Supply Agreement, the Seller is not a party to any agreement providing for any sharing of, or providing for or permitting any right of counterclaim, credit, reduction or deduction by contract or otherwise (a "Royalty Reduction") or permitting any Set-off against, the Royalties payable to the Seller. The Seller has no obligation and has not otherwise agreed to make any royalty or other similar payments to a Third Party in respect of the sale of the Licensed Product in the Territory.

(g) The Seller has not consented to an assignment, pledge, sale or other transfer (including license) by the Licensee of any of the Licensee's rights or obligations under the License Agreement, and the Seller does not have Knowledge of any such assignment, pledge, sale or other transfer (including license) by the Licensee. Except as contemplated by Section 2.1(a) and Section 2.1(d), the Seller has not assigned, sold or otherwise transferred any of its rights or obligations, in whole or in part, and has not granted, incurred or suffered to exist any Lien (other than Grünenthal's rights under the License Agreement, Liens created or existing under the Transaction Documents, and Liens created or existing under the Hercules Agreement that the Seller represents and warrants will be released concurrently with the Closing) on the License Agreement or any of its rights thereunder or on any of the Purchased Assets, and the Seller has not received any notice from the Licensee of the Licensee's intent to assign, pledge, sell or otherwise transfer (including license) any of the Licensee's rights or obligations on the License Agreement.

(h) Neither the Seller nor the Licensee has made any claim of indemnification under the License Agreement or the Manufacture and Supply Agreement.

(i) The Seller has not exercised its rights to conduct an audit under the License Agreement.

(j) To the Knowledge of the Seller, it has received all amounts owed to it under the License Agreement.

(k) To the Knowledge of the Seller, the Licensee has not granted to any other Person any sublicenses pursuant to the License Agreement.

Section 3.14 UCC Matters. The Seller's exact legal name is, and for the preceding 9 years has been, "AcelRx Pharmaceuticals, Inc." The Seller's principal place of business is, and for the preceding 9 years has been, located in the State of California. The Seller's jurisdiction of organization is, and for the preceding 9 years has been, the State of Delaware. For the preceding 9 years, the Seller has not been the subject of any merger or other corporate or other reorganization in which its identity or status was materially changed, except in each case where it was the surviving or resulting Person.

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Section 3.15 **Set-off and Other Sources of Royalty Reduction**. The Licensee has no express right of Set-off under any contract or other agreement against the Royalties, or any other amounts payable to the Seller under the License Agreement except as provided under Section 7.3(b), Section 7.3(c), Section 7.3(d) or Section 12.5 of the License Agreement and Article 9 of the Manufacture and Supply Agreement (by way of its reference to Section 12.5 of the License Agreement). The Licensee has not exercised and, to the Knowledge of the Seller, the Licensee has not had and does not currently have the right to exercise, nor, to the Knowledge of Seller, does any event or condition exist that, upon notice or passage of time or both, would reasonably be expected to permit the Licensee to exercise, any Royalty Reduction or Set-off against the Royalties or any other amounts payable to the Seller under the License Agreement. There are no compulsory licenses granted under Section 7.3(b)(i) of the License Agreement or, to the Knowledge of the Seller, threatened to be granted with respect to the AcelRx Patents.

Section 3.16 **Margin Stock; Investment Company**. (a) The Seller is not engaged in the business of extending credit for the purpose of buying or carrying margin stock, and no portion of the Purchase Price shall be used by the Seller for a purpose that violates Regulation T, U or X promulgated by the Board of Governors of the Federal Reserve System from time to time.

(b) The Seller is not an "investment company" or a company "controlled" by an "investment company," within the meaning of the Investment Company Act of 1940, as amended, including the rules and regulations thereunder (the "Investment Company Act").

ARTICLE IV

INTENTIONALLY OMITTED.

ARTICLE V

COVENANTS

The Parties covenant and agree as follows:

Section 5.1 **Books and Records; Notices**. (a) The Seller shall keep and maintain, or cause to be kept and maintained, at all times, full and accurate books and records adequate to reflect accurately all Royalties and related financial information received under the License Agreement.

(b) Promptly (but in no event more than five (5) Business Days) after receipt by the Seller of (i) (x) notice of the commencement by any Third Party of, or (y) written notice from any Third Party threatening to commence, in either case any action, suit, arbitration proceeding, claim, demand, dispute, investigation or other proceeding relating to this PSA, any of the other Transaction Documents, the License Agreement, any transaction contemplated hereby or thereby, the Purchased Assets or the Licensed Product (in any case other than any notice contemplated in Section 5.1(d)), or (ii) any other correspondence relating to the foregoing, the Seller shall (A) notify the Purchaser in writing of the receipt of such notice or correspondence and provide the Purchaser with a written summary of all material details thereof and (B) furnish the Purchaser with a copy thereof (if such notice is in writing) and any materials reasonably related thereto; provided, however, that, in any event the Seller may withhold, and shall have no obligation to notify the Purchaser of, or furnish to the Purchaser, any such notice to the extent [*].

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(c) Promptly (but in no event more than five (5) Business Days) after receipt by the Seller of any written notice, demand, certificate, correspondence, report or other communication provided under the License Agreement that relates to the Royalties, the AcelRx Patents, any Joint Patents, the Purchased Assets, the License Agreement or the Licensed Product and involving circumstances or events that would reasonably be expected to result in a Material Adverse Effect (in any case, other than any notice contemplated by Section 5.1(b) or 5.1(d)), the Seller shall (i) notify the Purchaser in writing of the receipt thereof and provide the Purchaser with a written summary of all material details thereof and (ii) furnish the Purchaser with a copy thereof; provided, however, that, in any event the Seller may withhold, and shall have no obligation to notify the Purchaser of, or furnish to the Purchaser, any such notice to the extent [*].

(d) The Seller shall provide the Purchaser with written notice as promptly as practicable (and in any event within five (5) Business Days) after obtaining Knowledge of the occurrence of any Bankruptcy Event in respect of the Seller.

(e) The Seller shall notify the Purchaser in writing not less than thirty (30) days prior to any change in, or amendment or alteration of, the Seller's (i) legal name, (ii) form or type of organizational structure or (iii) jurisdiction of organization; provided, that, if any change in the Seller's name, identity, legal entity type or jurisdiction of organization would make any financing or continuation statement or notice of lien filed in connection with this PSA seriously misleading within the meaning of applicable provisions of the UCC, the Seller hereby authorizes the Purchaser to file such amendments as may be required to preserve and protect the Purchaser's title and interest in and to the Purchased Assets and proceeds thereof and the collateral, if any, related thereto; it is understood that, during the term of this PSA, the Seller shall maintain its jurisdiction of organization in the United States.

(f) The Seller shall provide the Purchaser with written notice as promptly as practicable (and in any event within five (5) Business Days) after obtaining Actual Knowledge of the occurrence of (i) any breach or default by the Seller of any covenant, agreement or other provision of this PSA or any other Transaction Document; (ii) any representation or warranty made by the Seller in any of the Transaction Documents or in any certificate delivered to the Purchaser pursuant hereto proves to be untrue or inaccurate in any material respect on the date as of which made (except that any such representations and warranties that are qualified in respect of materiality or Material Adverse Effect shall prove to be untrue or inaccurate in any respect); or (iii) any change, effect, event, occurrence, state of facts, development or condition that would reasonably be expected to result in a Material Adverse Effect; provided, however, that, in any event the Seller may withhold, and shall have no obligation to notify the Purchaser of, or furnish to the Purchaser, any such notice to the extent [*].

(g) Subject to applicable confidentiality restrictions in the License Agreement, as promptly as practicable (but in any event within five (5) Business Days) after obtaining Actual Knowledge of an infringement of any AcelRx Patents, any Joint Patents or any other AcelRx Intellectual Property Rights, a written notice describing in reasonable detail the relevant infringement.

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(h) The Seller shall keep the Purchaser reasonably informed regarding the progress of the prosecution of any pending patent applications included in the AcelRx Patents that are being prosecuted by the Seller and that include claims that cover the Licensed Product before the European Patent Office and national patent offices in the Territory, as appropriate, and will promptly provide copies of office actions, responses, claim amendments and other substantive correspondence between the Seller and such patent offices. The Seller shall provide access to its staff responsible for patent prosecution and its registered European patent agents as are prosecuting such patent applications upon reasonable advance notice during normal business hours. If the Purchaser is dissatisfied with the performance of any of the Seller's registered European patent agents retained for the prosecution of the AcelRx Patents before the European Patent Office, the Purchaser may notify the Seller of such dissatisfaction and the reasons therefor and suggest alternate registered European patent agents for the Seller's consideration and possible retention in connection with such prosecution activities, and the Seller will consider the Purchaser's suggestions in good faith. The Seller agrees to consider the Purchaser's timely suggestions and advice with regard to the prosecution of such patent applications in good faith and, to the extent the Seller in good faith determines such suggestions and advice are legally and commercially reasonable and beneficial to the prosecution of such patent applications, implement such suggestions and advice.

Section 5.2 Confidentiality; Public Announcement.

(a) Except as expressly authorized in this PSA or except with the prior written consent of Seller, the Purchaser hereby agrees that (i) it will use the Confidential Information solely for the purpose of the transactions contemplated by this PSA and the other Transaction Documents and as necessary in exercising its rights and remedies and performing its obligations hereunder and thereunder; (ii) it will keep confidential the Confidential Information; (iii) it will not furnish or disclose to any Person any Confidential Information; and (iv) it shall take the same commercially reasonable steps to protect the Confidential Information as it takes to protect its own proprietary and confidential information. Notwithstanding anything to the contrary set forth in this PSA, the Parties acknowledge and agree that Confidential Information shall not include any information to the extent it can be established by competent written records (A) is, at the time of disclosure, or thereafter becomes, a part of the public domain or publicly known or available, other than through any act or omission of the Purchaser in breach of its obligations under this Section 5.2, (B) was known to the Purchaser, other than under an obligation of confidentiality, at the time of disclosure to the Purchaser, (C) is, at the time of disclosure, or thereafter becomes, known to the Purchaser from a source other than the Seller that had a lawful right to disclose such information to others and who, to the best knowledge of the Purchaser, did not directly or indirectly receive such information from the Seller under an obligation of confidentiality or (D) was independently developed by the Purchaser without use or reference to any Confidential Information or proprietary information or materials of the Seller.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(b) Notwithstanding anything to the contrary set forth in this PSA, the Purchaser may, without the consent of Seller, furnish or disclose Confidential Information to any potential or actual purchaser, transferee or assignee (and their respective directors, officers, employees, agents, attorneys, accountants, and other advisors and representatives (collectively, the "Representatives")) of all or any portion of the Purchased Assets to whom the Purchaser is entitled to sell, transfer or assign the Purchased Assets (or portion thereof) under Section 9.4 of this PSA, in each case in connection with such sale, transfer or assignment, provided that such potential or actual purchaser, transferee or assignee (and their respective Representatives) shall be informed of the confidential nature of such information and such potential or actual purchaser, transferee or assignee shall have agreed in writing to be bound by confidentiality provisions at least as stringent as this Section 5.2. Each Party hereby acknowledges that the United States federal and state securities laws prohibit any Person that has material, non-public information about a company from purchasing or selling securities of such a company or from communicating such information to any other Person under circumstances in which it is reasonably foreseeable that such Person is likely to purchase or sell such securities.

(c) In the event that the Purchaser, its Affiliates or their respective Representatives are required, in the opinion of its counsel, by Applicable Law or legal or judicial process (including by deposition, interrogatory, request for documents, subpoena, civil investigative demand or similar process) to furnish or disclose any portion of the Confidential Information, the Purchaser shall, except where impracticable, provide the Seller, as promptly as practicable, with written notice of the existence of, and terms and circumstances relating to, such requirement, and the Purchaser shall, at the sole cost and expense of the Seller, use efforts to secure confidential treatment of such Confidential Information at least as diligent as the Purchaser would use to perfect its own confidential information, but in no event less than reasonable efforts; provided that any Confidential Information so disclosed shall still be subject to the restrictions on use set forth in this Section 5.2 and, in any event, the Parties agree to take all reasonable action to avoid disclosure of Confidential Information in these circumstances; provided, further, that, for the avoidance of doubt, this Section 5.2(c) shall not apply to any disclosures or furnishings of Confidential Information (or any portion thereof) related to or arising from the disclosure requirements of the SEC, the NASDAQ stock market or any other stock exchange on which securities issued by a Party or its Affiliates are traded and such disclosures shall be made in accordance with the second sentence of Section 5.2(e) (except with respect to the filing of this PSA). Any disclosure of Confidential Information by the Purchaser in compliance with the provisions of this Section 5.2(c) shall not be a breach of the Purchaser's obligations under this Section 5.2.

(d) As soon as reasonably practicable following the Closing Date, one or both of the Parties shall issue a mutually agreed to press release substantially in the applicable form attached hereto as Exhibit D. Except as required by Applicable Law (including disclosure requirements of the SEC, the NASDAQ stock market or any other stock exchange on which securities issued by a Party or its Affiliates are traded), neither Party shall make any other public announcement concerning this PSA or the subject matter hereof without the prior written consent of the other, which shall not be unreasonably withheld or delayed; provided that it shall not be unreasonable for the Seller to withhold consent with respect to any public announcement containing any of the Confidential Information. In the event of a required public announcement, to the extent practicable under the circumstances, the Party making such announcement shall provide the other Party with a copy of the proposed text of such announcement sufficiently in advance of the scheduled release to afford such other Party a reasonable opportunity to review and comment upon the proposed text.

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(e) The Parties shall coordinate in advance with each other in connection with the filing of this PSA (including redaction of certain provisions of this PSA) with the SEC, the NASDAQ stock market or any other stock exchange or Governmental Authority on which securities issued by a Party or its Affiliate are traded, and each Party shall use reasonable efforts to seek confidential treatment for the terms of this PSA proposed to be redacted, if any; provided that each Party shall ultimately retain control over what information to disclose to the SEC, the NASDAQ stock exchange or any other stock exchange or Governmental Authority, as the case may be, and provided further that the Parties shall use their reasonable efforts to file redacted versions with any Governmental Authorities which are consistent with redacted versions previously filed with any other Governmental Authorities. Other than such obligation, neither Party (nor its Affiliates) shall be obligated to consult with or obtain approval from the other Party with respect to any filings to the SEC, the NASDAQ stock market or any other stock exchange or Governmental Authority. For clarity, once a public announcement or other disclosure is made by a Party in accordance with Section 5.2(d) or Section 5.2(e), then no further consent or compliance with Section 5.2(d) or Section 5.2(e) shall be required for any substantially similar disclosure thereafter.

(f) Notwithstanding anything to the contrary in this PSA, the Parties (and each of their respective employees, representatives or other agents) may disclose to any and all Persons, without limitation of any kind, the U.S. federal, state and local income tax treatment of the transactions contemplated by this PSA and all materials of any kind (including opinions or other tax analyses) relating to such U.S. federal, state, and local tax treatment and that may be relevant to understanding such U.S. federal, state, and local tax treatment.

Section 5.3 Further Assurances. (a) Subject to the terms and conditions of this PSA, each Party shall execute and deliver such other documents, certificates, instruments, agreements and other writings, take such other actions and perform such additional acts under Applicable Law as may be reasonably requested by the other Party to consummate and implement expeditiously the transactions contemplated by, and to carry out the purposes and intent of the provisions of, this PSA and the other Transaction Documents, including to (i) perfect the sale, assignment, transfer, conveyance, grant and contribution of the Purchased Assets to the Purchaser pursuant to this PSA, (ii) perfect, protect, more fully evidence, vest and maintain in the Purchaser good, valid and marketable rights and interests in and to the Purchased Assets free and clear of all Liens (other than Liens under the Transaction Documents), (iii) create, evidence and perfect the Purchaser's back-up security interest granted pursuant to Section 2.1(d) and (iv) enable the Purchaser to exercise or enforce any of the Purchaser's rights under any Transaction Document to which the Purchaser is party.

(b) The Seller and the Purchaser shall cooperate and provide assistance as reasonably requested by the other Party, at the expense of such other Party (except as otherwise set forth herein), in connection with any litigation, arbitration, investigation or other proceeding (whether threatened, existing, initiated or contemplated prior to, on or after the Closing Date) to which the other Party, any of its Affiliates or controlling persons or any of their respective officers, directors, managers, agents, equityholders, employees or controlling persons is or may become a party or is or may become otherwise directly or indirectly affected or as to which any such Persons have a direct or indirect interest, in each case relating to any Transaction Document, the transactions contemplated hereby or thereby, the Purchased Assets or the License Agreement, but in all cases excluding any litigation brought by the Seller (for itself or on behalf of any Seller Indemnified Party) against the Purchaser or brought by the Purchaser (for itself or on behalf of any Purchaser Indemnified Party) against the Seller.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(c) The Seller shall comply with all Applicable Laws with respect to the Transaction Documents, the License Agreement, the Licensed Product and the Purchased Assets, except where compliance therewith (and only so long as such compliance) is being contested by the Seller in good faith by appropriate proceedings and except where any non-compliance would not reasonably be expected to result in a Material Adverse Effect.

(d) The Seller shall not enter into any contract, agreement or other legally binding arrangement (whether written or oral), or grant any right to any other Person, in any case that would reasonably be expected to conflict with the Transaction Documents or the rights granted to the Purchaser thereunder, impair the Seller's ability to perform its obligations under the Transaction Documents or that would reasonably be expected to serve or operate to limit, impair or circumscribe any of the Purchaser's rights under the Transaction Documents (or the Purchaser's ability to exercise any such rights).

(e) The Seller shall (i) perform and comply in all material respects with its obligations under the License Agreement and (ii) not, without the prior written consent of the Purchaser and the Subsequent Purchaser (which consent shall not be unreasonably withheld, delayed, or conditioned), amend, modify, supplement, restate, waive, cancel or terminate (or consent to any cancellation or termination of and including any termination by merger, by operation of law or otherwise), in whole or in part, any provision of or right under the License Agreement, other than any provision relating solely to Manufacturing Matters, where any such amendment, modification, supplement, restatement, waiver, cancellation or termination would reasonably be expected to result in a Material Adverse Effect.

(f) On or promptly following the Closing Date, the Seller shall pay all commissions and broker's fees owed to Credit Suisse Securities (USA) LLC by the Seller in connection with the transactions contemplated by this PSA.

(g) The Seller shall not, directly or indirectly, transfer (including by way of any derivative arrangement) any of its interest in the Purchaser to any Person that is not a "qualified purchaser" within the meaning of Section 2(a)(51) of the Investment Company Act of 1940, as amended, including the rules and regulations thereunder and otherwise in accordance with the provisions of this PSA (unless such transfer does not otherwise cause the Purchaser to become subject to the registration requirements of the Investment Company Act and prior to effecting such transfer the Seller provides an opinion of counsel addressed to the Subsequent Purchaser and in a form satisfactory to the Subsequent Purchaser to that effect).

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Section 5.4 **Payments on Account of the Purchased Assets**. (a) If, notwithstanding the terms of the Licensee Instruction, the Licensee, any Sublicensee or any other Person makes any future payment in respect of the Payment Rights to the Seller or any of its Affiliates (other than the Purchaser), then (i) the portion of such payment that represents the Payment Rights payable to the Purchaser shall be held by the Seller (or such Affiliate) in trust for the benefit of the Purchaser in a segregated account, (ii) the Seller (or such Affiliate) shall have no right, title or interest whatsoever in such portion of such payment and shall not create or suffer to exist any Lien thereon and (iii) the Seller (or such Affiliate) promptly, and in any event no later than two (2) Business Days following the receipt by the Seller (or such Affiliate) of such portion of such payment, shall remit by wire transfer of immediately available funds such portion of such payment to the Company Collection Account in the exact amount received with all necessary endorsements (if applicable).

(b) If the Licensee, any Sublicensee or any other Person takes any Set-off based on any obligation or amount owing by the Seller or any of its Affiliates that does not constitute a Permitted Set-off hereunder and has the effect of reducing amounts required to be paid by the Licensee in respect of the Royalties, then the Seller promptly, and in any event no later than two (2) Business Days after the Seller acquires Knowledge of such Set-off, shall remit by wire transfer of immediately available funds an amount equal to 75% of such Set-off to the Company Collection Account (which amount, the Parties acknowledge and agree, shall not be considered Licensor Retained Amounts for any purpose). Any payments made by the Seller pursuant to this Section 5.4(b) shall reduce on a dollar-for-dollar basis any amounts that would otherwise be payable under Section 5.4(b) of the SPSA by the Purchaser for the same Set-off. The Parties acknowledge and agree that, to the extent the Seller has made any payments to the Company Collection Account for any Set-off based on the first sentence of this paragraph (b) and all or any portion of the amount so paid is subsequently paid by or on behalf of Licensee (including through recovery on any judgment or from insurance) to any of the Company Collection Account, the Seller, the Purchaser or the Subsequent Purchaser in payment of all or such portion of such previously Set-off amount, such amount so paid by or on behalf of Licensee (or received through such recovery or insurance) shall for all purposes be considered Licensor Retained Amounts.

(c) The Seller shall make all payments required to be made by it to the Purchaser pursuant to this PSA by wire transfer of immediately available funds, to the account set forth as the "Purchaser Account" on Exhibit E (or to such other account as the Purchaser shall notify the Seller in writing from time to time) (the "Purchaser Account").

(d) If (i) the Licensee, any Sublicensee or any other Person makes any payment to the Purchaser of any amounts under the License Agreement other than the Payment Rights, or (ii) the Subsequent Purchaser makes any payment to Purchaser under Section 5.4(d) of the SPSA, then except to the extent such payment is transferred by the Servicer from the Company Collection Account pursuant to Section 3.01(c) *first* of the Servicing Agreement, (x) such payment shall be held by the Purchaser in trust for the benefit of the Seller in a segregated account, (y) the Purchaser shall have no right, title or interest whatsoever in such payment and shall not create or suffer to exist any Lien thereon and (z) the Purchaser promptly, and in any event no later than three (3) Business Days following the receipt by the Purchaser of such payment, shall remit such payment to the Seller Account pursuant to Section 5.4(e) in the exact amount received with all necessary endorsements (if applicable).

(e) The Purchaser shall make all payments required to be made by it to the Seller pursuant to this PSA by wire transfer of immediately available funds in United States dollars, to the account set forth on Exhibit F (or to such other account as the Seller shall notify the Purchaser in writing from time to time) (the "Seller Account").

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(f) Any payments made by the Seller to the Purchaser under this PSA shall be made free and clear of and without deduction or withholding for any Taxes, except as required by Applicable Law. If the Seller is required by Applicable Law to deduct or withhold any Tax from any sums payable to the Purchaser, then (i) the Seller shall make such deductions or withholdings and pay the full amount deducted to the relevant Governmental Authority in accordance with Applicable Law and provide the Purchaser with written evidence that such payment was made; (ii) such deducted or withheld amounts shall be treated as if paid by the Seller to the Purchaser under this PSA and the Seller shall not be required to pay additional amounts in respect of such deducted or withheld Taxes to the Purchaser other than solely with respect to any deductions or withholdings on account of Covered Taxes, and (iii) solely with respect to any deductions or withholdings on account of Covered Taxes, the sum payable by the Seller to the Purchaser shall be increased as necessary so that after making all required deductions and withholdings (including deductions and withholdings applicable to additional sums payable under this Section 5.4(f)) the Purchaser receives an amount equal to the sum it would have received had no such deductions or withholdings been made.

(g) Any payments made by the Purchaser to the Seller under this PSA shall be made free and clear of and without deduction or withholding for any Taxes, except as required by Applicable Law. If the Purchaser is required by Applicable Law to deduct or withhold any Tax from any sums payable to Seller, then (i) the Purchaser shall make such deductions or withholdings and pay the full amount deducted to the relevant Governmental Authority in accordance with Applicable Law and provide the Seller with written evidence that such payment was made, (ii) such deducted or withheld amounts shall be treated as if paid by the Purchaser to the Seller under this PSA, and the Purchaser shall not be required to pay additional amounts in respect of such deducted or withheld Taxes to the Seller other than solely with respect to any deductions or withholdings on account of Covered Taxes (provided, that, for purposes of this Section 5.4(g), all references to the Seller in clauses (i) through (iii) of the definition of Covered Taxes shall instead be deemed to be references to the Purchaser), and (iii) solely with respect to any deductions or withholdings on account of Covered Taxes, the sum payable by the Purchaser to the Seller shall be increased as necessary so that after making all required deductions and withholdings (including deductions and withholdings applicable to additional sums payable under this Section 5.4(g)) the Seller receives an amount equal to the sum it would have received had no such deductions or withholdings been made.

Section 5.5 License Agreement . (a) The Seller (i) shall perform and comply with in all material respects its obligations under the License Agreement, (ii) shall not, without the prior written consent of the Purchaser, which consent shall not be unreasonably withheld, delayed, or conditioned, (A) forgive, release or compromise any Royalties payable by the Licensee under the License Agreement or (B) grant or create any Liens (other than (I) Liens created or existing under the License Agreement or the Transaction Documents, (II) Liens on the Licensor Retained Amounts and related amounts under the License Agreement, and (III) Liens under the License Agreement related to monitoring and enforcement of, or otherwise related to, the rights described in clause (II) or the Seller's rights described in clauses (b) and (c) of the definition of "Purchased Assets") on the License Agreement, (iii) shall not enter into any new contract, agreement or legally binding arrangement in respect of the Purchased Assets (other than in connection with the non-exclusive rights to certain of the Purchased Assets that it retains under clauses (b) and (c) of the definition thereof), the AcelRx Patents with respect to the Field in the Territory or the sale of the Licensed Product in the Territory without the prior written consent of the Purchaser, which consent shall not be unreasonably withheld, delayed, or conditioned, and (iv) except as provided in Section 5.6, shall not agree to do any of the foregoing. The Seller shall promptly (and in any case within five (5) Business Days) deliver to the Purchaser copies of all fully-executed or definitive writings related to the matters set forth in clauses (ii), (iii) and (iv) of the immediately preceding sentence except to the extent such writing is related solely to Manufacturing Information or Manufacturing Matters and does not relate to any claims of the Licensee or any liability of the Seller under Article 9 of the Manufacture and Supply Agreement by way of its reference to Section 12.5 of the License Agreement.

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(b) Except as otherwise expressly set forth in this ARTICLE V, the Seller shall not, without the prior written consent of the Purchaser, which consent shall not be unreasonably withheld, delayed, or conditioned, grant or withhold any consent, exercise or waive any right or option, fail to exercise any right, grant or option or deliver to the Licensee any notice under, in respect of, affecting or relating to the Purchased Assets, the AcelRx Patents, any Joint Patents, the Licensed Product or the License Agreement, except in each case where doing so would not reasonably be expected to result in a Material Adverse Effect (excluding from such prohibition any Manufacturing Matters that do not relate to any claims of the Licensee or any liability of the Seller under Article 9 of the Manufacture and Supply Agreement by way of its reference to Section 12.5 of the License Agreement). The Seller shall promptly (and in any case within five (5) Business Days) deliver to the Purchaser copies of all fully-executed or definitive writings related to the matters set forth in the immediately preceding sentence where the Purchaser's prior written consent is required.

(c) Promptly (and in any case within five (5) Business Days) after receiving (i) notice from the Licensee, including any notice terminating the License Agreement in whole or in part, alleging any breach of or default under the License Agreement by the Seller or asserting the existence of any facts, circumstances or events that, alone or together with other facts, circumstances or events, would reasonably be expected (with or without the giving of notice or passage of time, or both) to give rise to a breach of or default under the License Agreement by the Seller or the right to terminate the License Agreement (in whole or in part) by the Licensee, or (ii) any other correspondence relating to the foregoing, in each case the Seller shall (A) (x) give written notice thereof to the Purchaser and provide the Purchaser with a written summary of all material details thereof, (y) include a copy of any written notice received from the Licensee, and (z) in the case of any breach or default or alleged breach or default by the Seller, describe in reasonable detail any corrective action the Seller proposes to take in respect of such breach or default or alleged breach or default, and (B) in the case of any actual breach or default by the Seller and after consultation with the Purchaser, use commercially reasonable efforts to cure such breach or default and give written notice to the Purchaser upon curing such breach or default; provided, however, that, if the Seller fails to promptly cure any such actual breach or default (other than any such breach or default that involves solely a Manufacturing Matter that does not relate to any claims of the Licensee or any liability of the Seller under Article 9 of the Manufacture and Supply Agreement by way of its reference to Section 12.5 of the License Agreement), without limiting any other rights it may have, the Purchaser shall, upon written notice to the Seller, be entitled to (x) pay directly to the Licensee any amounts due and payable under the License Agreement from the Seller to the Licensee the nonpayment of which constitutes any such breach or default and (y) take any and all actions the Purchaser considers reasonably necessary to promptly cure, or cause the Seller to cure, any such breach or default that does not entail nonpayment of any amount due from the Seller to the Licensee under the License Agreement, to the extent it is possible to cure such breach or default. The Seller shall reasonably cooperate, with the Purchaser in its effort to cure or cause the Seller to cure any such actual breach or default, and shall reimburse the Purchaser, promptly (but in no event later than five (5) Business Days) following demand, for all out-of-pocket costs and expenses incurred by the Purchaser in connection therewith.

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(d) Promptly after the Seller obtains Knowledge of a material breach of or material default under, or an alleged material breach of or material default under, the License Agreement by the Licensee (the "Defaulting Party") or of the existence of any facts, circumstances or events that, alone or together with other facts, circumstances or events, would reasonably be expected (with or without the giving of notice or passage of time, or both) to give rise to a material breach of or material default under the License Agreement by the Defaulting Party or would give rise to the right to terminate the License Agreement (in whole or in part) by the Seller, in each case the Seller shall (i) promptly (but in any event within five (5) Business Days) give written notice to the Purchaser and provide the Purchaser with a written summary of all material details thereof (excluding any Manufacturing Information or Manufacturing Matter that does not relate to any claims of the Licensee or any liability of the Seller under Article 9 of the Manufacture and Supply Agreement by way of its reference to Section 12.5 of the License Agreement). In the event of any such material breach or material default, the Seller shall proceed in consultation with the Purchaser and take all commercially reasonable actions (including commencing legal actions against the Licensee using legal counsel reasonably satisfactory to each of the Seller and the Purchaser) to enforce compliance by the Licensee with the relevant provisions of the License Agreement and to exercise any or all of the rights and remedies available, whether under the License Agreement or by operation of Applicable Law or equity, with respect thereto, in the Seller's capacity as Servicer under the Servicing Agreement. The Purchaser acknowledges and agrees that it shall have no right to enforce any rights or remedies directly on its own behalf and shall rely on the Servicer or the Replacement Servicer under the Servicing Agreement for such enforcement in accordance with the terms of the Servicing Agreement. Without limiting the foregoing, the Purchaser shall have no claims or rights (i) to seek to cause or enforce performance under the License Agreement by the Licensee, including but not limited to alleging any failure by the Licensee to use the level of effort required by the License Agreement in the performance of the Licensee's obligations thereunder, directly on its own behalf (and shall rely on the Servicer or the Replacement Servicer under the Servicing Agreement for such enforcement in accordance with the terms of the Servicing Agreement), or (ii) to seek payment of any amounts due from or to any party under the License Agreement or the Manufacture and Supply Agreement, other than amounts constituting Payment Rights, and in that case only in accordance with the Servicing Agreement. It is acknowledged and agreed that the Licensee is entitled to Royalty Reductions and Set-offs, under and in accordance with the License Agreement and the Manufacture and Supply Agreement, with respect to payments due to the Licensor and its assignees (including the Purchaser) as and to the same extent as the Licensee would be entitled to Royalty Reductions and Set-offs with respect to such payments thereunder prior to giving effect to any assignment (including the transactions contemplated by this PSA), including but not limited to any Royalty Reductions and Set-offs to which the Licensee may be entitled thereunder in the case of any failure or delay in the supply of Licensed Product by the Licensor or its Affiliates.

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(e) To the extent permitted under the License Agreement, the Seller shall (i) take any and all actions, and prepare, execute, deliver and file any and all agreements, documents and instruments, that are reasonably necessary or desirable to diligently preserve, prosecute and maintain the AcelRx Patents and any Joint Patents, including payment of maintenance fees or annuities, at the sole cost and expense of the Seller, and (ii) diligently defend (and enforce) the applicable AcelRx Patents and any Joint Patents against infringement or interference by any other Person in the Field and in any jurisdiction in the Territory, and against any claims of invalidity or unenforceability, in the Field and in any jurisdiction in the Territory and, in connection with any such defense and enforcement activities, shall proceed in consultation with the Purchaser and take all commercially reasonable actions (including by bringing any legal action for infringement or defending any counterclaim of invalidity or action of any other Person for declaratory judgment of non-infringement or non-interference using legal counsel reasonably satisfactory to each of the Seller and the Purchaser) to so diligently defend (and enforce) the applicable AcelRx Patents and any Joint Patents. In the event that the Parties agree that the Seller shall not control the defense or prosecution of any of the claims or actions to which reference is made in clause (ii) above in this Section 5.5(e) (including any enforcement of AcelRx Patents and any Joint Patents against infringement or interference by any other Person in the Field and in any jurisdiction in the Territory), the Purchaser shall have the right to do so, with counsel appointed by the Purchaser, subject to the applicable terms of the Servicing Agreement with respect to allocation of responsibility for the costs associated therewith. The Seller shall have the right, at its sole expense, to participate in (but not control) any action, suit or other proceeding described in clause (ii) above in this Section 5.5(e) that the Purchaser controls pursuant the immediately preceding sentence. The Seller shall not disclaim or abandon, or fail to take any commercially reasonable action necessary or desirable to prevent the disclaimer or abandonment of, any AcelRx Patents or any Joint Patents during any Royalty Term (as defined in Section 7.3 of the License Agreement) without the prior written consent of the Purchaser.

(f) Except in connection with any assignment by the Seller of its rights and a delegation by the Seller of its obligations under this PSA pursuant to and in accordance with Section 9.4 of this PSA or any assignment by the Seller in accordance with Section 16.4 or Section 16.10 of the License Agreement or any sale, transfer, disposition or assignment of any Licensor Retained Amounts, the Seller shall not dispose of, assign or otherwise transfer, in whole or in part, the License Agreement (other than pursuant to this PSA and other than its rights to the Licensor Retained Amounts and related amounts under the License Agreement, its rights described in clauses (b) and (c) of the definition of "Purchased Assets," and its rights under the License Agreement related to monitoring and enforcement of, or otherwise related to, the aforementioned rights) or any of the Seller's right, title or interest in or to the AcelRx Patents or any Joint Patents with respect to the rights under such AcelRx Patents or Joint Patents under the License Agreement (which, for purposes of clarity, shall not prohibit the Seller from entering into licenses or similar arrangements with respect to the AcelRx Patents or any Joint Patents outside the Field or outside the Territory). The Seller shall not, except for Liens granted or created in connection with transactions or arrangements effected in accordance with the immediately preceding sentence, grant or create any Lien on any of its rights, title or beneficial interest in, to or under, whether directly or indirectly, the License Agreement or the AcelRx Patents or Joint Patents with respect to the rights under such AcelRx Patents or Joint Patents under the License Agreement.

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(g) Subject to the Servicing Agreement, the provisions of the License Agreement and the Manufacture and Supply Agreement and any rights of the Licensee under either the License Agreement or the Manufacture and Supply Agreement and any limitations that Seller reasonably requires to protect the attorney-client privilege based on advice from outside counsel (provided that, where so advised, the Seller shall enter into a joint defense agreement or other agreement with the Purchaser in order to maintain the attorney-client privilege of any information shared with the Purchaser), the Seller shall make available its relevant records and personnel to the Purchaser in connection with any prosecution of litigation by the Seller against the Licensee to enforce any of the Purchaser's rights under this PSA, including with respect to any of the Purchased Assets. Subject to the Servicing Agreement, the provisions of the License Agreement and the Manufacture and Supply Agreement and any rights of the Licensee under either the License Agreement or the Manufacture and Supply Agreement and any limitations that the Seller reasonably requires to protect the attorney-client privilege based on advice from outside counsel (provided that, where so advised, the Seller shall enter into a joint defense agreement or other agreement with the Purchaser in order to maintain the attorney-client privilege of any information shared with the Purchaser), the Seller shall make available its relevant records and personnel to the Purchaser in connection with any prosecution of litigation by the Seller with respect to the matters covered by Section 5.5(e).

(h) The Seller shall not grant any license, sublicense or other right in or to the AcelRx Intellectual Property Rights covering the Licensed Product with respect to the Territory and in the Field, unless such license, sublicense or other right becomes a License Agreement hereunder and the royalties under such license become part of the Purchased Assets.

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Section 5.6 Termination of the License Agreement. (a) Without limiting the provisions of Section 5.5 or any other rights or remedies the Purchaser may have under this PSA, if during the Royalty Term the Licensee terminates or provides written notice of termination of the License Agreement or the License Agreement otherwise terminates in each case either with respect to the entire Territory or with respect to any of France, Germany, Italy, Spain or the United Kingdom, then, the Seller shall use commercially reasonable efforts to negotiate a replacement license agreement for the License Agreement or, in the case of a partial termination of the License Agreement, with respect to the portion of the Territory to which the termination relates covering, at a minimum, the grant of an exclusive license under the AcelRx Intellectual Property Rights to make, have made, use, import, offer for sale and sell the Licensed Product or a suitable other product in the same geographical territories as those covered by the License Agreement (or the portion of the Territory to which the termination relates) on the most favorable economic terms (to the licensor) reasonably practicable in light of then-prevailing market conditions (any such license, a "New Arrangement"). If the Seller identifies any New Arrangement, the Seller shall present the material terms of the New Arrangement to the Purchaser and, upon the express written consent of the Purchaser (which consent shall not be unreasonably withheld), the Seller shall include the royalties payable under such New Arrangement (other than the royalties and milestone and other payments that correlate to the Licensor Retained Amounts) with respect to the Licensed Product as a Purchased Asset and/or enter into, duly execute and deliver a new license agreement effecting such New Arrangement ("New License Agreement"). If the Seller identifies or enters into a New Arrangement, Seller agrees to comply with the provisions of this PSA in connection with the New Arrangement by including the royalty payments owing to Seller thereunder (other than the royalties and milestone and other payments that correlate to the Licensor Retained Amounts) in the Purchased Assets, and references herein to the Purchased Assets and the License Agreement with respect to the Licensed Product shall be deemed to include any New Arrangement and New License Agreement, and all related definitions and references in the Transaction Documents shall be deemed to be references to the New Arrangement and New License Agreement without further action by the parties to amend the Transaction Documents. Notwithstanding the foregoing, the Purchaser, at its sole election by written notice to the Seller following any such termination, shall have the right to negotiate a New Arrangement and New License Agreement in collaboration with the Seller, and the Seller shall provide reasonable assistance to and cooperate with the Purchaser, at the Purchaser's sole discretion, in such efforts as the Purchaser shall undertake in connection with the negotiation of a New Arrangement and New License Agreement. Any such New Arrangement or New License Agreement shall (i) become effective not earlier than the effective date of such termination of the License Agreement, (ii) expire not later than the last day of the Royalty Term (and, if such termination is only in part in respect of the Licensed Product in any of France, Germany, Italy, Spain or the United Kingdom (and not the entire Territory), the Royalty Term for purposes of the foregoing shall be such term that is applicable under the License Agreement for the Licensed Product in such country) and (iii) include terms, conditions and limitations that are not materially less favorable to the Seller or the Purchaser, taking into account the sale of the Purchased Assets (and the retention of the Licensor Retained Amounts) pursuant to the Transaction Documents, than those contained in the License Agreement, including with respect to obligations and costs imposed on the Seller, disclaimers of and limitations on the Seller's liability, intellectual property ownership and control and indemnification.

(b) Should the Purchaser identify any New Arrangement or New License Agreement pursuant to Section 5.6(a), the Seller agrees to duly execute and deliver the New License Agreement effecting such New Arrangement that satisfies the foregoing requirements promptly upon the written request of the Purchaser.

Section 5.7 Audits. (a) The Seller shall not, without the prior written consent of the Purchaser, and the Seller shall, upon the written request of the Purchaser, cause an audit of the Licensee's books and records to be conducted pursuant to and in accordance with Section 8.5 of the License Agreement. For the purposes of exercising the Purchaser's rights pursuant to this Section 5.7(a), the Seller shall appoint such certified public accountant as the Seller, in its capacity as Servicer, shall select for such purpose (it being understood and agreed that any such certified public accountant shall, pursuant to Section 8.5 of the License Agreement, be reasonably acceptable to the Licensee, which acceptance is not to be unreasonably withheld or delayed) and which certified public accountant is reasonably acceptable to the Purchaser. The Seller and the Purchaser agree that all of the expenses of any audit carried out at the request of the Purchaser pursuant to this Section 5.7(a) that would otherwise be borne by the Seller pursuant to the License Agreement shall instead be borne by the Purchaser and the Seller on a pro rata basis, with the Purchaser bearing 75% of any such expenses and the Seller bearing 25% of such expenses, and with such expenses as are to be borne by the Purchaser being reimbursed to the Seller promptly on demand, including (i) the pro rata portion of such reasonable fees and expenses of such certified public accountant as are to be borne by the Seller pursuant to Section 8.5 of the License Agreement and (ii) the pro rata portion of the Seller's reasonable and bona fide out-of-pocket costs and expenses incurred in connection with such inspection or audit. The Seller shall furnish to the Purchaser any audit report prepared in connection with such audit, provided that any information regarding Manufacturing Matters or Manufacturing Information that does not relate to any claims of the Licensee or any liability of the Seller under Article 9 of the Manufacture and Supply Agreement by way of its reference to Section 12.5 of the License Agreement may be omitted from such report by the auditor or may be redacted by the Seller prior to providing such report to the Purchaser.

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(b) In the event that any audit conducted pursuant to Section 5.7(a) uncovers that the amounts actually paid to the Purchaser for any period in respect of the Purchased Assets was less than the amounts that should have been paid to the Purchaser for such period in respect of the Purchased Assets, the Seller, in its capacity as Servicer, shall expeditiously pursue collection of such underpayment, together with interest thereon and reimbursement for the expenses of such inspection or audit, from the Licensee in accordance with and to the extent provided under Section 8.5 of the License Agreement.

Section 5.8 **Tax Matters**. (a) The Seller and Purchaser shall each be liable for, and shall pay when due, [*] of any Transfer Taxes payable by reason of the transfer of the Purchased Assets under this PSA and the transfer of the Purchased Interest under the SPSA and shall file all necessary returns, reports or other filings with respect to all such Transfer Taxes.

(b) At the Purchaser's reasonable expense, (i) the Seller will use commercially reasonable efforts (including upon the Purchaser's reasonable request) to file any Tax form or other documentation required to be filed by the Seller under Applicable Law in effect as of the date hereof that would enable the Purchaser to receive payments under this PSA and the License Agreement free from, or at a reduced rate of, withholding Tax or other Taxes that would result in a reduction of Royalties, and (ii) the Seller will use commercially reasonable efforts to file any other Tax form or other documentation required to be filed by Seller under Applicable Law that is not in existence as of the date hereof that would enable the Purchaser to receive payments under this PSA and the License Agreement free from, or at a reduced rate of, withholding Tax or other Taxes that would result in a reduction to the definition of "Royalties" unless, in the Seller's reasonable judgment, the completion, execution or submission of such Tax form or documentation would materially prejudice the legal or commercial position of the Seller.

(c) The Seller will promptly notify Purchaser in the event that it has Actual Knowledge of any withholding or other Taxes that may constitute a reduction of Royalties pursuant to the proviso in clause (c) of the definition of "Royalties" and will consult with Purchaser in good faith in determining whether such Taxes are owed.

(d) The Seller and the Purchaser will each use commercially reasonable efforts, at the request and expense of the other Party, to cooperate with each other to minimize any Taxes imposed on or with respect to the Royalties or otherwise incurred with respect to the transactions undertaken pursuant to the Transaction Documents. Upon the reasonable request of a Party, the other Party will, at the requesting Party's expense, use commercially reasonable efforts to obtain a refund of any non-de minimus amount that the Parties agree (in their reasonable discretion) is attributable to a payment made pursuant to this Agreement and with respect to which a non-de minimus refundable payment is likely to be available from the applicable Tax authority to which a Tax payment was made.

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Section 5.9 **Administrative Services**. The Purchaser hereby engages the Seller to perform on behalf of the Purchaser, and the Seller hereby agrees to perform on behalf of the Purchaser, Administrative Servicing (as defined below) with respect to the Purchaser's obligations under the SPSA and the transactions and agreements contemplated thereby. The Seller, in its capacity as administrative servicer to the Purchaser (the Seller, acting in such capacity, the "Administrative Servicer") shall perform its Administrative Servicing obligations under this PSA in good faith, in accordance with applicable Law and in a manner generally consistent with its reasonable and prudent servicing procedures for servicing, monitoring, managing, maintaining, delivering and administering assets comparable to the Purchased Assets and the Purchased Interest for its own account or for others, including with respect to the servicing of accounts receivable similar to the Payment Rights for its own account (assuming, for these purposes, that the License Agreement were the only business of the Administrative Servicer) or for others and in any event with such care as a reasonably prudent servicer would use to service and administer the Purchased Assets and the Purchased Interest. "Administrative Servicing" means the following services, applying the servicing standards described in the preceding sentence:

(a) taking all such actions on behalf of the Purchaser as are necessary to fulfill the obligations of the Purchaser under the SPSA, and any documents or agreements related thereto or contemplated thereby;

(b) on behalf of Purchaser, arrange compliance with all organization, tax, accounting, licensing and other administrative measures necessary for the maintenance of the Purchaser's existence and the Purchaser's compliance with Applicable Laws and fulfilling the Purchaser's obligations under the Subsequent Purchase Agreement and the other Transaction Documents to which it is a party, including but not limited to servicing, monitoring, managing, maintaining, delivering and administering on behalf of the Purchaser all necessary and applicable matters relating to the Purchaser's general business, including the maintenance and keeping of all necessary and separate accountancies, books and records in accordance with Applicable Law; facilitation of annual accounts; administering and maintaining without commingling insofar as practicable the separate funds of the Purchaser, the Seller, any Subsequent Purchaser and funds belonging to any other person, including maintaining separate bank accounts in the Purchaser's name and collection and concentration accounts (with procedures to minimize commingling of funds while facilitating efficient payment of amounts by the Licensee) as are required in connection with the SPSA and any arrangements with Other Purchasers; fulfillment of any limited liability company organizational and administrative requirements imposed by Applicable Law; delivery of necessary information technology; and service, monitor, manage, maintain, deliver and administer all other matters as may be required for the Purchaser to maintain its status as an independent entity (including the separateness obligations set forth in Section 5.10 of the SPSA); and

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(c) taking such other actions as shall be reasonably necessary or appropriate to perform the foregoing duties.

Section 5.10 Existence. The Seller shall (a) preserve and maintain its existence and shall not take any action to dissolve or liquidate itself, (b) preserve and maintain its rights, franchises and privileges unless failure to do any of the foregoing in this subparagraph (b) would not reasonably be expected to result in a Material Adverse Effect, (c) qualify and remain qualified in good standing in each jurisdiction where the failure to preserve and maintain its existence, rights, franchises, privileges and/or qualifications would reasonably be expected to result in a Material Adverse Effect, including appointing and employing such agents or attorneys in each such jurisdiction where it shall be necessary to take action under this PSA, and (d) comply with its organizational documents and not take any action to waive, repeal, amend, vary, supplement or otherwise modify such organizational documents in a manner that would reasonably be expected to result in a Material Adverse Effect; provided, however, that nothing in this Section 5.10 shall prohibit the Seller from entering into any merger or consolidation with, or selling or otherwise transferring all or substantially all of its assets to, any other Person if the Seller is the continuing or surviving entity or if the surviving or continuing or acquiring entity assumes (either expressly or by operation of law) all of the obligations of the Seller under the Transaction Documents and the License Agreement and furnishes a written agreement to the Purchaser to that effect, substantially in the form of Exhibit H; provided, further, that such Person is a "qualified purchaser" within the meaning of Section 2(a)(51) of the Investment Company Act of 1940, as amended, including the rules and regulations thereunder or that such transaction does not otherwise cause the Purchaser to become subject to the registration requirements of the Investment Company Act and prior to effecting such transaction the Seller provides an opinion of counsel addressed to the Subsequent Purchaser and in a form satisfactory to the Subsequent Purchaser to that effect.

ARTICLE VI

THE CLOSING

Section 6.1 Closing. Subject to delivery of the closing deliverables set forth in Section 6.2 by the Seller and Section 6.3 by the Purchaser, the closing of the transactions contemplated hereby (the "Closing") shall take place at 9:00 a.m., Eastern Standard Time, on September 18, 2015 (the "Closing Date"), contemporaneous with the execution of this PSA, at the offices of Cadwalader, Wickersham & Taft LLP located at One World Financial Center, New York, New York 10281, or on such other date, at such other time or at such other place, in each case as the Parties mutually agree.

Section 6.2 Closing Deliverables of the Seller. Prior to or at, and as a condition precedent to, the Closing, the Seller shall deliver or cause to be delivered to the Purchaser the following:

(a) this PSA duly executed by the Seller and acknowledged by the Subsequent Purchaser;

(b) the Initial Bill of Sale duly executed by the Seller;

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(c) the Licensee Instruction duly executed by the Seller, which shall have been delivered to the Licensee in accordance with the License Agreement;

(d) the Servicing Agreement duly executed by all parties thereto other than the Purchaser;

(e) a certificate of an executive officer of the Seller (the statements made in which shall be true and correct on and as of the Closing Date): (i) attaching copies, certified by such officer as true and complete, of (x) the organizational documents of the Seller and (y) resolutions of the governing body of the Seller authorizing and approving the execution, delivery and performance by the Seller of the Transaction Documents and the transactions contemplated hereby and thereby, (ii) setting forth the incumbency of the officer or officers of the Seller who have executed and delivered the Transaction Documents, including therein a signature specimen of each such officer or officers and (iii) attaching a copy, certified by such officer as true and complete, of a good standing certificate of the appropriate Governmental Authority of the Seller's jurisdiction of organization, stating that the Seller is in good standing under the laws of such jurisdiction;

(f) the duly executed copy of the SACA by all parties other than the Purchaser;

(g) evidence reasonably satisfactory to the Purchaser of the release of the Liens on the Purchased Assets granted under the Hercules Agreement;

(h) evidence reasonably satisfactory to the Purchaser that all of the conditions precedent to the Second Amendment becoming effective have been satisfied substantially concurrently with the consummation of the transactions contemplated hereby; and

(i) each of the Financing Statements and such other certificates and documents the Purchaser may have reasonably requested to create, evidence and perfect the sale, assignment, transfer, conveyance, contribution and grant of the Purchased Assets pursuant to Section 2.1 and the back-up security interest granted pursuant to Section 2.1(d).

Section 6.3 Closing Deliverables of the Purchaser. Prior to or at, and as a condition precedent to, the Closing, the Purchaser shall deliver or cause to be delivered to the Seller the following:

(a) this PSA duly executed by the Purchaser;

(b) the Initial Bill of Sale duly executed by the Purchaser;

(c) the duly executed copy of the SACA by all parties other than the Seller;

(d) the Servicing Agreement duly executed by all parties thereto other than the Seller;

(e) evidence that all Capital Securities of the Purchaser have been issued in the name of the Seller or its designee; and

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(f) the Purchase Price in accordance with Section 2.2.

ARTICLE VII

INDEMNIFICATION

Section 7.1 Indemnification by the Seller. Subject to Section 9.9, the Seller agrees to indemnify and hold harmless the Purchaser and its Affiliates and any or all of their respective partners, directors, trustees, officers, managers, employees, members, agents and controlling persons (each, a "Purchaser Indemnified Party") from and against, and will pay to each Purchaser Indemnified Party the amount of, any and all Losses awarded against or incurred or suffered by such Purchaser Indemnified Party, whether or not involving a Third Party Claim, arising out of (a) any breach of any representation, certification or warranty made by the Seller in any of the Transaction Documents or in any certificate or Servicer Report delivered by the Seller to the Purchaser in writing pursuant to this PSA or any other Transaction Document, (b) any breach of or default under any covenant or agreement of the Seller in any of the Transaction Documents, (c) any Excluded Liabilities and Obligations, (d) [*], (e) any fees, expenses, costs, liabilities or other amounts, including brokerage or finder's fees or commissions, incurred or owed by the Seller to any brokers, financial advisors or comparable other Persons retained or employed by it or for its benefit in connection with the transactions contemplated by this PSA, or (f) Third Party Claims arising on or after the Closing Date and asserted against a Purchaser Indemnified Party relating to the transactions contemplated in any Transaction Document or the License Agreement (but, for purposes of clarity, excluding any such Losses to the extent such Losses arise out of (i) an actual violation of Applicable Law by any Purchaser Indemnified Party or (ii) an actual breach by any Purchaser Indemnified Party of any agreement or obligation to which such Purchaser Indemnified Party is a party or to which it or its assets are otherwise subject or bound (other than any Transaction Document), in each of cases (i) and (ii) only if the Purchaser was not an Affiliate of the Seller at the time of the applicable violation or breach (or, if the Purchaser was an Affiliate of the Seller at such time, if the Purchaser Indemnified Party was acting at the request, instruction or direction of the Subsequent Purchaser in connection with the actions or failures to act that caused such violation or breach)); provided, however, that the foregoing shall exclude any indemnification to any Purchaser Indemnified Party (i) that has the effect of imposing on the Seller any recourse liability for Royalties because of the insolvency or other creditworthiness problems of the Licensee or breach of or default under the License Agreement of the Licensee (to the extent such default does not result from the breach or default by the Seller of or under the License Agreement) or the insufficiency of the Royalties, whether as a result of the amount of cash flow arising from sales or licensing of the Licensed Product or otherwise, in any case except to the extent resulting from any breach or default by the Seller of or under any of the Transaction Documents, (ii) for any matter in respect of which any Seller Indemnified Party would be entitled to indemnification under Section 7.2, (iii) to the extent resulting from the bad faith, gross negligence or willful misconduct of any Purchaser Indemnified Party if the Purchaser was not an Affiliate of the Seller at such time (or, if the Purchaser was an Affiliate of the Seller at such time, if the Purchaser Indemnified Party was acting at the request, instruction or direction of the Subsequent Purchaser in connection with the actions or failures to act that constituted such bad faith, gross negligence or willful misconduct), (iv) to the extent resulting from the failure of the Licensee to perform any of its obligations under the License Agreement, except to extent resulting from any breach or default by the Seller of or under the License Agreement or the Transaction Documents or (v) to the extent resulting from acts or omissions of the Seller based upon the written instructions from any Purchaser Indemnified Party if the Purchaser was not an Affiliate of the Seller at such time (or, if the Purchaser was an Affiliate of the Seller at such time, if the Purchaser Indemnified Party was acting at the request, instruction or direction of the Subsequent Purchaser in connection with providing such written instructions) (unless the Seller is otherwise liable for such Losses pursuant to the terms of this PSA). With respect to indemnification by the Seller pursuant to this Section 7.1, (i) the Seller's maximum liability shall not exceed an amount equal to [*], *minus* (B) the aggregate amount collected or received by the Subsequent Purchaser (and any direct or indirect transferee of the Subsequent Purchaser to whom any interest in the Purchased Assets is transferred) in respect of the Payment Rights or as a result of any payments made by the Seller pursuant to Section 5.4(b) or by the Purchaser pursuant to Section 5.4(b) of the SPSA, *minus* (C) the aggregate amount collected or received by the Subsequent Purchaser (and any direct or indirect transferee of the Subsequent Purchaser to whom any interest in the Purchased Assets is transferred) pursuant to the exercise of its rights under this Section 7.1 or under Section 7.1 of the SPSA (without duplication of any amounts received pursuant to clauses (B) or (D)), *minus* (D) the aggregate amount collected or received by the Subsequent Purchaser pursuant to Article V of the Servicing Agreement (without duplication of any amounts received pursuant to clauses (B) or (C)). The Purchaser's rights under Section 7.1 shall be assigned by the Purchaser to the Subsequent Purchaser pursuant to the terms of the SPSA.

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Section 7.2 **Indemnification by the Purchaser**. Subject to Section 9.9, the Purchaser agrees to indemnify and hold each of the Seller and its Affiliates and any or all of their respective partners, directors, officers, managers, members, employees, agents and controlling Persons (each, a "Seller Indemnified Party") harmless from and against, and will pay to each Seller Indemnified Party the amount of, any and all Losses awarded against or incurred or suffered by such Seller Indemnified Party, whether or not involving a Third Party Claim, arising out of (a) any breach of or default under any covenant or agreement of the Purchaser in any Transaction Document to which the Purchaser is party if the Purchaser was not an Affiliate of the Seller at such time (or, if the Purchaser was an Affiliate of the Seller at such time, if the Purchaser was acting at the request, instruction or direction of the Subsequent Purchaser in connection with such breach or default) or (b) any fees, expenses, costs, liabilities or other amounts, including brokerage or finder's fees or commissions, incurred or owed by the Purchaser to any brokers, financial advisors or comparable other Persons retained or employed by it or for its benefit in connection with the transactions contemplated by this PSA if the Purchaser was not an Affiliate of the Seller at such time (or, if the Purchaser was an Affiliate of the Seller at such time, if the Purchaser was acting at the request, instruction or direction of the Subsequent Purchaser in connection with retaining or engaging such Persons); provided, however, that the foregoing shall exclude any indemnification to any Seller Indemnified Party (i) to the extent resulting from the bad faith, gross negligence or willful misconduct of any Seller Indemnified Party, (ii) for any matter in respect of which any Purchaser Indemnified Party would be entitled to indemnification under Section 7.1 or (iii) to the extent resulting from acts or omissions of the Purchaser based upon the written instructions from any Seller Indemnified Party (unless the Purchaser is otherwise liable for such Losses pursuant to the terms of this PSA).

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Section 7.3 **Procedures for Third Party Claims**. If any Third Party Claim shall be brought or alleged against an indemnified party in respect of which indemnity is to be sought against an indemnifying party pursuant to Section 7.1 or Section 7.2, the indemnified party shall, promptly after receipt of notice of the commencement of such Third Party Claim, notify the indemnifying party in writing of the commencement thereof, enclosing a copy of all papers served, if any; provided, that the omission to so notify such indemnifying party will not relieve the indemnifying party from any liability that it may have to any indemnified party under Section 7.1 or Section 7.2 unless, and only to the extent that, the indemnifying party is actually prejudiced by such omission. In the event that any Third Party Claim is brought against an indemnified party and it notifies the indemnifying party of the commencement thereof in accordance with this Section 7.3, the indemnifying party will be entitled, at the indemnifying party's sole cost and expense, to participate therein and, to the extent that it may wish, to assume the defense thereof, with counsel selected by such indemnifying party, but reasonably satisfactory to such indemnified party (which counsel shall not, except with the consent of the indemnified party, be the current counsel to the indemnified party with respect to such Third Party Claim), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party will not, subject to the immediately succeeding sentence, be liable to such indemnified party under this ARTICLE VII for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation. In any such Third Party Claim, an indemnified party shall have the right to retain its own counsel, but the reasonable fees and expenses of such counsel shall be at the sole cost and expense of such indemnified party unless (a) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel, (b) the indemnifying party has assumed the defense of such proceeding and has failed within a reasonable time to retain counsel reasonably satisfactory to such indemnified party or (c) the named parties to any such Third Party Claim (including any impleaded parties) include both the indemnifying party and the indemnified party and representation of both parties by the same counsel would be inappropriate due to actual or potential conflicts of interests between them based on the advice of counsel to the indemnified party. It is agreed that the indemnifying party shall not, in connection with any Third Party Claim or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate law firm (in addition to local counsel where necessary) for all such indemnified parties. The indemnifying party shall not be liable for any settlement of any Third Party Claim effected without its prior written consent (which shall not be unreasonably withheld, conditioned or delayed), but, if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any Loss by reason of such settlement or judgment. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or discharge of any pending or threatened Third Party Claim in respect of which any indemnified party is or could have been a party and indemnity could be sought hereunder by such indemnified party, unless such settlement, compromise or discharge, as the case may be, (i) includes an unconditional, full written release of such indemnified party, in form and substance reasonably satisfactory to the indemnified party, from all liability on claims that are the subject matter of such claim or proceeding, (ii) does not include any statement as to an admission of fault, culpability or failure to act by or on behalf of any indemnified party and (iii) does not impose on such indemnified party any continuing obligations or restrictions other than customary and reasonable confidentiality obligations relating to such claim, settlement or compromise.

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Section 7.4 Other Claims. A claim by an indemnified party under this ARTICLE VII for any matter not involving a Third Party Claim and in respect of which such indemnified party seeks indemnification hereunder may be made by delivering, in good faith, a written notice of demand to the indemnifying party, which notice shall contain (a) a description and the amount of any Losses incurred or suffered or reasonably expected to be incurred or suffered by the indemnified party to the extent known, (b) a statement that the indemnified party is entitled to indemnification under this ARTICLE VII for such Losses and a reasonable explanation of the basis therefor, and (c) a demand for payment in the amount of such Losses. For all purposes of this Section 7.4, the Seller shall be entitled to deliver such notice of demand to the Purchaser on behalf of the Seller Indemnified Parties, and the Purchaser shall be entitled to deliver such notice of demand to the Seller on behalf of the Purchaser Indemnified Parties. Within fourteen (14) days after receipt by the indemnifying party of any such notice, the indemnifying party may deliver to the indemnified party that delivered the notice a written response in which the indemnifying party (a) agrees that the indemnified party is entitled to the full amount of the Losses claimed in the notice from the indemnified party; (b) agrees that the indemnified party is entitled to part, but not all, of the amount of the Losses claimed in the notice from the indemnified party; or (c) indicates that the indemnifying party disputes the entire amount of the Losses claimed in the notice from the indemnified party. If the indemnified party does not receive such a response from the indemnifying party within such fourteen (14) day period, then the indemnifying party shall be conclusively deemed to have agreed that the indemnified party is entitled to the full amount. If the indemnifying party and the indemnified party are unable to resolve any dispute relating to any amount of the Losses claimed in the notice from the indemnified party within thirty (30) days after the delivery of the response to such notice from the indemnifying party, then the Parties shall be entitled to resort to any legal remedy available to such Party to resolve such dispute that is provided for in this PSA, subject to all the terms, conditions and limitations of this PSA.

Section 7.5 Time Limitations. (a) The Seller shall have liability under Section 7.1(a) with respect to any breach of any representation or warranty made by the Seller in any of the Transaction Documents or in any certificates or Servicer Reports delivered by the Seller to the Purchaser in writing pursuant to this PSA or any other Transaction Document, except with respect to the proviso in this Section 7.5, only if the Purchaser notifies the Seller of a claim, specifying the factual basis of such claim in reasonable detail, on or prior to the date that is [*] years after the date such representation or warranty was first made; provided, that, notwithstanding the foregoing, such survival period for the representations and warranties made by the Seller in Sections 3.8, 3.11(b) and 3.11(h) before the expiration of which the Purchaser must provide notice to the Seller with respect to a claim for a breach shall be [*] years from the date such representations and warranties were first made and for the representations and warranties made in 3.13(c) shall be [*] years from the date such representations and warranties were first made.

(b) The Purchaser shall not have liability under Section 7.2 with respect to any breach of any representation or warranty made by the Purchaser in any of the Transaction Documents to which it is a party or any certificate delivered by the Purchaser to the Seller in writing pursuant to this PSA.

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Section 7.6 Exclusive Remedy. Except for any claims for specific performance pursuant to Section 9.2 and as may be set forth in Section 9.9, following the Closing, the indemnification afforded by this ARTICLE VII shall be the sole and exclusive remedy for any and all Losses awarded against or incurred or suffered by the Purchaser Indemnified Parties against the Seller, and the Seller Indemnified Parties against the Purchaser, as the case may be, in connection with the transactions contemplated by the Transaction Documents, including with respect to any breach of any representation or warranty made by a Party in any of the Transaction Documents or any certificate delivered by a Party to the other Party in writing pursuant to this PSA or any breach of or default under any covenant or agreement by a Party pursuant to any Transaction Document, in each case, other than (x) any breach or default resulting from the fraud, willful misconduct or bad faith of such Party; provided that any action, suit or proceeding brought with respect to any claim described in clause (x) above shall be subject to the monetary limitation on recovery by indemnification pursuant to Section 7.1 (in the aggregate with any other amounts that are subtracted from the [*] amount in determining the monetary limitation on recovery by indemnification pursuant to Section 7.1).

Section 7.7 Limitations(a) . (a) The Purchaser acknowledges and agrees that, other than the representations and warranties of the Seller specifically contained in any of the Transaction Documents or in any certificate or Servicer Report delivered by the Seller to the Purchaser in writing pursuant to this PSA or any other Transaction Document, there are no representations or warranties of the Seller or any other Person either expressed or implied with respect to the Royalties, Net Sales, the AcelRx Intellectual Property Rights, the Purchased Assets, the Payment Rights, applicable Regulatory Approvals, the Licensed Product, the License Agreement, this PSA or the transactions contemplated hereby or in any of the other Transaction Documents or otherwise, and that it does not rely on, and shall have no remedies in respect of, any representation or warranty not specifically set forth in any of the Transaction Documents or in any certificate or Servicer Report delivered by the Seller to the Purchaser in writing pursuant to this PSA or any other Transaction Document. Without limiting the foregoing, the Purchaser acknowledges and agrees that, except as expressly set forth in any representation or warranty in any of the Transaction Documents or in any certificate or Servicer Report delivered by the Seller to the Purchaser in writing pursuant to this PSA or any other Transaction Document, the Purchaser shall have no claim or right regarding Losses pursuant to this ARTICLE VII (or otherwise) with respect to any information, documents or materials furnished or made available to the Purchaser or any of its Affiliates or its or its Affiliates' Representatives in any data room, presentation, interview or in any other form or manner relating to the transactions contemplated hereby or by the License Agreement or any of the other Transaction Documents.

(b) Notwithstanding anything herein to the contrary, but subject to the remainder of this Section 7.7, in no event shall any Seller Indemnified Party or Purchaser Indemnified Party have any liability for, or Losses be deemed to include, any special, consequential, punitive or exemplary damages, whether in contract or tort, regardless of whether the other Party shall be advised, shall have reason to know, or in fact shall know of the possibility of such damages suffered or incurred by any such Seller Indemnified Party or Purchaser Indemnified Party in connection with this PSA, any of the other Transaction Documents or any of the transactions contemplated hereby or thereby, except in the event such damages are determined, by a court of competent jurisdiction, to be, and become, payable to a Third Party.

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ARTICLE VIII

TERMINATION

Section 8.1 **Termination of Agreement**. This PSA shall terminate on the earlier of (a) twelve (12) months after the later of the last day of the Royalty Term or the date of delivery to the Purchaser of any final audit report after such last day of the Royalty Term (or the last day following the last day of the Royalty Term on which the Seller, pursuant to Section 8.5 of the License Agreement, continues to have the right to audit the books and records of Grünenthal for any period occurring during the Royalty Term), (b) the date when the SPSA terminates, and (c) mutual written agreement of the Purchaser and the Seller (solely with the express written consent of the Subsequent Purchaser).

Section 8.2 **Effect of Termination**. Upon the termination of this PSA pursuant to Section 8.1, this PSA shall become void and of no further force and effect; provided, however, that (a) the provisions of Section 5.2, ARTICLE VII, this ARTICLE VIII and ARTICLE IX shall survive such termination and shall remain in full force and effect, (b) if, upon the termination of this PSA, any portion of the Royalties Interest are payable to the Purchaser, this PSA shall remain in full force and effect until any and all such payments have been made in full, and (except as provided in this Section 8.2) solely for that purpose, and (c) nothing contained in this Section 8.2 shall relieve either Party from liability for any breach of this PSA that occurs prior to termination or after (with respect to any provisions of this PSA that remain in effect after such termination in accordance with this Section 8.2).

ARTICLE IX

MISCELLANEOUS

Section 9.1 **Survival**. All representations, warranties and covenants made in this PSA, in any other Transaction Document or in any certificate delivered pursuant to this PSA shall survive the execution and delivery of this PSA and the Closing for the periods set forth in this PSA, such other Transaction Document or such certificate, as applicable. The rights hereunder to indemnification and payment of Losses or other remedies based on any such representations, warranties or covenants shall not be affected by any investigation conducted with respect to, or any knowledge acquired (or capable of being acquired) at any time in respect of, in each case, whether before or after the execution and delivery of this PSA or the Closing, the accuracy or inaccuracy of or compliance with, any such representation, warranty or covenant.

Section 9.2 **Specific Performance**. Each Party acknowledges and agrees that, if it fails to perform any of its obligations under any of the Transaction Documents, the other Party may have no adequate remedy at law. In such event, each Party agrees that the other Party shall have the right, in addition to any other rights it may have (whether at law or in equity), to seek specific performance of this PSA and to pursue any other equitable remedies including injunction. Each Party may pursue such specific performance or other equitable remedies without going through any of the procedures set forth in ARTICLE VII.

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Section 9.3 **Notices**. All notices, consents, waivers and other communications hereunder shall be in writing and shall be effective (a) upon receipt when sent by registered or certified mail, return receipt requested, postage prepaid, with such receipt to be effective the date of delivery indicated on the return receipt, (b) upon receipt when sent by an overnight courier, (c) on the date personally delivered to an authorized officer of the Party to which sent or (d) on the date transmitted by facsimile or other electronic transmissions with a confirmation of receipt, in all cases, with a copy emailed to the recipient at the applicable address, addressed to the recipient as follows:

if to the Seller, to:

AcelRx Pharmaceuticals, Inc.
351 Galveston Drive
Redwood City, California 94063
Attention: Chief Executive Officer
Telephone: 650-216-3500
Facsimile: 650-216-6500
Email: hrosen@acelrx.com

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

AcelRx Pharmaceuticals, Inc.
351 Galveston Drive
Redwood City, California 94063
Attention: Chief Financial Officer
Telephone: 650-216-3500
Facsimile: 650-216-6500
Email: tmorris@acelrx.com

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

Cooley LLP
4401 Eastgate Mall
San Diego, CA 92121
Attention: Matthew Browne
Telephone: (858) 550-6000
Facsimile: (858) 550-6420
Email: brownemt@cooley.com

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if to the Purchaser, to:

ARPI LLC
351 Galveston Drive
Redwood City, California 94063
Attention: Chief Operating Officer
Telephone: 650-216-3500
Facsimile: 650-216-6500
Email: tmorris@acelrx.com

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

PDL BioPharma, Inc.
932 Southwood Blvd.
Incline Village, Nevada 89451
Attention: General Counsel
Telephone: 775-832-8500
Facsimile: 775-832-8501
Email: general.counsel@pdl.com

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

Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, California 90071-3197
Attention: Karen Bertero, Esq.
Telephone: 213-229-7360
Facsimile: 213-229-6360
Email: KBertero@gibsondunn.com

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

Cooley LLP
4401 Eastgate Mall
San Diego, CA 92121
Attention: Matthew Browne
Telephone: (858) 550-6000
Facsimile: (858) 550-6420
Email: brownemt@cooley.com

Each Party may, by notice given in accordance herewith to the other Party, designate any further or different address to which subsequent notices, consents, waivers and other communications shall be sent.

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Section 9.4 Successors and Assigns. Neither the Seller nor the Purchaser shall be entitled to assign any of its rights or delegate any of its obligations under this PSA without the prior written consent of the other Party, except that the Seller may, without the consent of the Purchaser, assign its rights and delegate its obligations under this PSA to any other Person (a) into which it may merge, (b) with which it may consolidate, (c) to which it may sell all or substantially all of its assets, or (d) to which it may sell all or substantially all of its assets or all of the business to which the License Agreement relates if such License Agreement is also assigned to such other Person; and provided, however, that the assignee under such assignment agrees to be bound by the terms of the Transaction Documents to which the Seller is a party and, if applicable, the License Agreement and furnishes a written agreement to the Purchaser to that effect, substantially in the form of Exhibit H, and (x) such Person is a "qualified purchaser" within the meaning of Section 2(a)(51) of the Investment Company Act of 1940, as amended, including the rules and regulations thereunder or (y) such transaction does not otherwise cause the Purchaser to become subject to the registration requirements of the Investment Company Act and prior to effecting such transaction the Seller provides an opinion of counsel addressed to the Subsequent Purchaser and in a form satisfactory to the Subsequent Purchaser to that effect; provided, further, that, the Purchaser may, without the consent of the Seller, assign any of its rights and delegate any of its obligations under this PSA in connection with its entering into the SPSA. The Purchaser shall give written notice to the Seller of any assignment permitted by this Section 9.4 promptly (but in any event within five (5) Business Days) after the occurrence thereof. Any purported assignment of rights or delegation of obligations in violation of this Section 9.4 will be void. Subject to the foregoing, this PSA will apply to, be binding upon, and inure to the benefit of, the successors and permitted assigns of the Parties.

Section 9.5 Independent Nature of Relationship. The relationship between the Seller and the Purchaser is solely that of seller and purchaser, and neither the Seller nor the Purchaser has any fiduciary or other special relationship with the other Party or any of its Affiliates. This PSA is not a partnership or similar agreement, and nothing contained herein or in any other Transaction Document shall be deemed to constitute the Seller and the Purchaser as a partnership, an association, a joint venture or any other kind of entity or legal form for any purposes, including any Tax purposes. The Parties agree that they shall not take any inconsistent position with respect to such treatment in a filing with any Governmental Authority.

Section 9.6 Entire Agreement. This PSA, together with the Exhibits and Schedules hereto, and the other Transaction Documents, constitute the entire agreement between the Parties, and supersede all prior agreements, understandings and negotiations, both written and oral, between the Parties, with respect to the subject matter of this PSA.

Section 9.7 Governing Law. (a) THIS PSA SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL SUBSTANTIVE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO THE RULES THEREOF RELATING TO CONFLICTS OF LAW OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK, AND THE OBLIGATIONS, RIGHTS AND REMEDIES OF THE PARTIES HEREUNDER SHALL BE DETERMINED IN ACCORDANCE WITH SUCH LAWS.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(b) Each Party irrevocably and unconditionally submits, for itself and its property, to the exclusive jurisdiction of (i) the United States District Court for the Southern District of New York and (ii) the Supreme Court of the State of New York, Borough of Manhattan, for purposes of any claim, action, suit or proceeding arising out of this PSA, any of the other Transaction Documents or any of the transactions contemplated hereby or thereby, and agrees that all claims in respect thereof shall be heard and determined only in such courts. Each Party agrees to commence any such claim, action, suit or proceeding only in the United States District Court for the Southern District of New York or, if such claim, action, suit or proceeding cannot be brought in such court for jurisdictional reasons, in the Supreme Court of the State of New York, Borough of Manhattan, and agrees not to bring any such claim, action, suit or proceeding in any other court. Each Party hereby waives, and agrees not to assert in any such claim, action, suit or proceeding, to the fullest extent permitted by Applicable Law, any claim that (i) such Party is not personally subject to the jurisdiction of such courts, (ii) such Party and such Party's property is immune from any legal process issued by such courts or (iii) any claim, action, suit or proceeding commenced in such courts is brought in an inconvenient forum. Each Party agrees that a final judgment in any such claim, action, suit or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by Applicable Law. Each Party acknowledges and agrees that this Section 9.7(b) constitutes a voluntary and bargained-for agreement between the Parties.

(c) The Parties agree that service of process in any claim, action, suit or proceeding referred to in Section 9.7(b) may be served on either Party anywhere in the world including by sending or delivering a copy of such process to such Party in any manner provided for the giving of notices in Section 9.3. Nothing in this PSA will affect the right of either Party to serve process in any other manner permitted by Applicable Law. Each Party waives personal service of any summons, complaint or other process, which may be made by any other means permitted by New York law.

Section 9.8 Waiver of Jury Trial. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS PSA, OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF THE OTHER PARTY HERETO HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT THE OTHER PARTY HERETO WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTY HERETO HAVE BEEN INDUCED TO ENTER INTO THIS PSA BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 9.8.

Section 9.9 Severability. If one or more provisions of this PSA are held to be invalid, illegal or unenforceable by a court of competent jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision of this PSA, which shall remain in full force and effect, and the Parties shall replace such invalid, illegal or unenforceable provision with a new provision permitted by Applicable Law and having an economic effect as close as possible to the invalid, illegal or unenforceable provision. Any provision of this PSA held invalid, illegal or unenforceable only in part or degree by a court of competent jurisdiction shall remain in full force and effect to the extent not held invalid or unenforceable.

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Section 9.10 **Counterparts**. This PSA may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This PSA shall become effective when each Party shall have received a counterpart hereof signed by the other Party. Any counterpart may be executed by facsimile or other similar means of electronic transmission, including "PDF", and such facsimile or other electronic transmission shall be deemed an original.

Section 9.11 **Amendments; No Waivers**. Neither this PSA nor any term or provision hereof may be amended, supplemented, restated, waived, changed, terminated or modified except with the written consent of the Parties and the Subsequent Purchaser. No failure or delay by either Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No notice to or demand on either Party in any case shall entitle it to any notice or demand in similar or other circumstances. No waiver or approval hereunder shall, except as may otherwise be stated in such waiver or approval, be applicable to subsequent transactions. No waiver or approval hereunder shall require any similar or dissimilar waiver or approval thereafter to be granted hereunder.

Section 9.12 **Except for Subsequent Purchaser, No Third Party Rights**. (a) Other than the Parties and the Subsequent Purchaser, which is an express intended third party beneficiary of this PSA with respect to Sections 5.3(e), 5.3(g), 8.1 and 9.11 and, in the event that a PSA Triggering Event has occurred and the matters with respect to which rights and/or remedies were requested by the Subsequent Purchaser to be exercised by Purchaser hereunder in connection with such PSA Triggering Event remain unresolved, with respect to the Purchaser's rights and remedies under ARTICLE V (other than the Purchaser's rights set forth in the proviso to Section 5.5(c)), no Person will have any legal or equitable right, remedy or claim under or with respect to this PSA. The Seller shall enforce any legal or equitable right, remedy or claim under or with respect to this PSA for the benefit of the Seller Indemnified Parties and the Purchaser (subject to the terms and conditions of this PSA) shall enforce any legal or equitable right, remedy or claim under or with respect to this PSA for the benefit of the Purchaser Indemnified Parties.

Section 9.13 **Table of Contents and Headings**. The Table of Contents and headings of the Articles and Sections of this PSA have been inserted for convenience of reference only, are not to be considered a part hereof and shall in no way modify or restrict any of the terms or provisions hereof.

Section 9.14 **Cumulative Remedies**. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by Applicable Law.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the Parties have executed this PSA as of the day and year first written above.

ACELRX PHARMACEUTICALS, INC.

By: /s/ Timothy E. Morris
Name: Timothy E. Morris
Title: Chief Financial Officer

ARPI LLC

By: AcelRx Pharmaceuticals, Inc., its sole Member

By: /s/ Timothy E. Morris
Name: Timothy E. Morris
Title: Chief Financial Officer

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EXHIBIT A

FORM OF INITIAL BILL OF SALE

BILL OF SALE

This BILL OF SALE (this "Bill of Sale") is dated as of September 18, 2015 (the "Closing Date") and executed and delivered by AcelRx Pharmaceuticals, Inc., a Delaware corporation (the "Seller"), in favor of ARPI LLC, a Delaware limited liability company (the "Purchaser" and, together with the "Seller", the "Parties").

RECITALS

WHEREAS, the Seller and the Purchaser are parties to that certain Purchase and Sale Agreement, dated as of September 18, 2015 (the "PSA"), pursuant to which, among other things, the Seller agrees to sell, assign, transfer, contribute, grant and convey to the Purchaser, and the Purchaser agrees to purchase, acquire and accept from the Seller, all of the Seller's right, title and interest in, to and under the License Agreement to receive all of the Royalties Interest and the other rights and assets included in the Purchased Assets, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts), for the consideration described in the PSA; and

WHEREAS, the Parties now desire to carry out the purposes of the PSA by the execution and delivery of this Bill of Sale evidencing the Purchaser's purchase, acquisition and acceptance of all of the Seller's right, title and interest in, and to the Royalties Interest and the other rights and assets included in the Purchased Assets, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts), for the consideration described in the PSA.

NOW, THEREFORE, in consideration of the premises and the mutual agreements set forth in the PSA and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

1. The Seller, by this Bill of Sale, does hereby sell, assign, transfer, grant, contribute and convey to the Purchaser, and the Purchaser (and its successors and permitted assigns) does hereby purchase, acquire and accept, all of the Seller's right, title and interest in, and to the Royalties Interest and the other rights and assets included in the Purchased Assets, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts).

2. The Parties acknowledge that the Purchaser is not assuming any of the Excluded Liabilities and Obligations.

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3. The Seller hereby covenants that, from time to time after the delivery of this Bill of Sale, at Purchaser's request, the Seller will do, execute, acknowledge and deliver, or will cause to be done, executed, acknowledged and delivered such further acts, conveyances, transfers, assignments, powers of attorney and assurances as the Purchaser may reasonably require to sell, assign, transfer, grant, contribute and convey to the Purchaser, and to put the Purchaser in possession of, the Royalties Interest and the other rights and assets included in the Purchased Assets, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts and which, for purposes of clarity, shall not require the Seller to make any request to, or to take any action with respect to, Grünenthal, except as set forth in the Transaction Documents).

4. This Bill of Sale (i) is made pursuant to, and is subject to the terms of, the PSA and nothing in this Bill of Sale shall alter any liability or obligation of the Seller and the Purchaser arising under the PSA, which shall govern the representations, warranties and obligations of the Parties with respect to the Royalties Interest and the other rights and assets included in the Purchased Assets together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts) and (ii) shall be binding upon and inure to the benefit of the Seller, the Purchaser and their respective successors and permitted assigns.

5. THIS BILL OF SALE SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL SUBSTANTIVE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO THE RULES THEREOF RELATING TO CONFLICTS OF LAW OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK, AND THE OBLIGATIONS, RIGHTS AND REMEDIES OF THE PARTIES HEREUNDER SHALL BE DETERMINED IN ACCORDANCE WITH SUCH LAWS.

6. This Bill of Sale may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all of such counterparts shall together constitute but one and the same instrument.

7. The following terms as used herein shall have the following respective meanings (and capitalized terms used herein, but not otherwise defined herein, shall have the meaning ascribed to them in the PSA):

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means 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, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

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"Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Seller and the Purchaser.

"Capital Securities" means, with respect to any Person, all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) of such Person's capital, whether now outstanding or issued after the Closing Date, including common shares, ordinary shares, preferred shares, membership interests or share capital in a limited liability company or other Person, limited or general partnership interests in a partnership, beneficial interests in trusts or any other equivalent of such ownership interest or any options, warrants and other rights to acquire such shares or interests, including rights to allocations and distributions, dividends, redemption payments and liquidation payments.

"Closing Date" means September 18, 2015.

"Excluded Liabilities and Obligations" has the meaning set forth in Section 2.3 of the PSA.

"Excluded Payments" means all amounts due or paid to the Seller or any of its Affiliates other than the Royalties, including all amounts due or paid to the Seller or any of its Affiliates pursuant to Section 7.1, Section 7.2(a), Section 7.2(b) (other than the first four milestone payments thereunder), Section 7.2(c) or Section 7.4 of the License Agreement.

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

"First Commercial Sale" means "First Commercial Sale" as defined in Section 1.51 of the License Agreement.

"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any country or jurisdiction.

"Grünenthal" means Grünenthal GmbH, a German company.

"License Agreement" means that certain Collaboration and License Agreement, dated as of December 16, 2013, between the Seller and the Licensee, as amended from time to time (including by the Licensee Consent and, for amendments entered into following the Closing Date, amended in a manner consistent with the terms of the PSA and the SPSA).

"Licensee" means Grünenthal, in its capacity as licensee under the License Agreement.

"Licensee Consent" means that certain letter agreement, dated July 17, 2015, by and between the Seller and the Licensee, regarding, among other things, the transfer of the Purchased Assets to the Purchaser and the further transfer of certain of the Purchased Assets by the Purchaser to the Subsequent Purchaser.

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"Licensee Instruction" means the irrevocable notice and direction to the Licensee in the form set forth in Exhibit B to the PSA.

"Licensor" means the Seller in its capacity as licensor under the License Agreement.

"Licensor Retained Amounts" means in the aggregate (i) the portion of Royalties payable or paid by the Licensee from time to time, and any interest on late payments thereof, that is in each case in excess of the amounts constituting the Royalties Interest (including interest on late payments thereof), (ii) without duplication of any of the amounts described in clause (i), any amount deemed Licensor Retained Amounts under the third sentence of Section 5.4(b) of the PSA or the third sentence of Section 5.4(b) of the SPSA, and (iii) all payments that constitute Excluded Payments.

"Manufacture and Supply Agreement" means the Manufacture and Supply Agreement, dated as of December 16, 2013, between the Seller and Grünenthal, as amended from time to time.

"New Arrangement" has the meaning set forth in Section 5.6(a) of the PSA.

"New License Agreement" has the meaning set forth in Section 5.6(a) of the PSA.

"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any intellectual property rights that are Patents.

"Patents" means "Patents" as defined in Section 1.91 of the License Agreement.

"Permitted Set-off" means any Set-off against royalties or other amounts payable to Seller by Licensee under the License Agreement that is expressly permitted under Sections 7.3(b), 7.3(c) or 7.3(d) of the License Agreement.

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

"Purchased Assets" means, collectively, the Seller's (a) right, title and interest in, to and under the License Agreement or any New Arrangement or New License Agreement to receive an amount of Royalties equal to the Royalties Interest, (b) right, under the License Agreement, to receive reports pursuant to Section 7.5 of the License Agreement (but not to the exclusion of the Seller) or any corresponding provision of any New Arrangement or New License Agreement, (c) right to receive the results of any audit conducted pursuant to Section 8.5 of the License Agreement (but not to the exclusion of the Seller) or any corresponding provision of any New Arrangement or New License Agreement, (d) right to receive interest payable or paid pursuant to the License Agreement in respect of late payments of amounts constituting the Royalties Interest or any corresponding provision of any New Arrangement or New License Agreement, and (e) rights to enforce the receipt of payment and the payment and performance by the Licensee of the obligations set forth in the License Agreement or any New Arrangement or New License Agreement corresponding to the rights described in subclauses (a) through (d) above, in accordance with the License Agreement (or any New Arrangement or New License Agreement, as applicable), the PSA and the Servicing Agreement.

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"Purchaser Portion" means (a) with respect to (i) all Royalties other than the first four milestone payments under Section 7.2(b) of the License Agreement and (ii) all other related amounts included in the definition of "Royalties" with respect to the Royalties described in clause (i), seventy-five percent (75%) of a specified amount that is payable or has been paid, and (b) solely with respect to Royalties that consist of the first four milestone payments under Section 7.2(b) of the License Agreement and all other related amounts included in the definition of "Royalties" with respect to such Royalties, eighty percent (80%) of a specified amount that is payable or has been paid.

"Royalties" has the meaning set forth in Section 1.1 of the PSA.

"Royalties Commencement Date" means the date after the Closing Date of the First Commercial Sale in the first country in the Territory in which such First Commercial Sale occurs.

"Royalties Interest" means the Purchaser Portion of Royalties.

"Royalty Reduction" has the meaning set forth in Section 3.13(f) of the PSA; provided, however, that "Royalty Reduction" shall not include any Set-offs.

"Royalty Term" means the period commencing on the Royalties Commencement Date, and ending on the last day of the last to expire "Royalty Term" as defined in Section 7.3(e) of the License Agreement.

"SACA" means the Security and Control Agreement, dated as of September 18, 2015, among the Seller, the Purchaser, the Subsequent Purchaser and U.S. Bank National Association as initial collateral agent and initial depositary agent thereunder.

"Servicing Agreement" means that certain Servicing Agreement, dated as of September 18, 2015, among the Seller, the Purchaser and the Subsequent Purchaser.

"Set-off" means any set-off, off-set, charge, reduction or similar deduction; provided, however, that "Set-off" shall not include any Royalty Reduction.

"SPSA" means that certain Subsequent Purchase and Sale Agreement, dated as of September 18, 2015, between the Purchaser (as seller of certain of the Purchased Assets thereunder) and the Subsequent Purchaser.

"Subsequent Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Purchaser and the Subsequent Purchaser.

"Subsequent Purchaser" means PDL BioPharma, Inc.

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"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, sales, use, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

"Tax Return" means any report, return, form (including elections, declarations, statements, amendments, claims for refund, schedules, information returns or attachments thereto) or other information supplied or required to be supplied to a Governmental Authority with respect to Taxes.

"Territory" means "Territory" as defined under Section 1.111 of the License Agreement, but including Australia only for so long as Australia remains part of the Territory pursuant to the License Agreement.

"Transaction Documents" means the PSA, the Bill of Sale, the Licensee Instruction, the SPSA, the Subsequent Bill of Sale, the Servicing Agreement and the SACA.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided, that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(d) of the PSA is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of Delaware, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of the PSA and any financing statement relating to such perfection or effect of perfection or non-perfection.

"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

[Signature page follows]

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IN WITNESS WHEREOF, the Parties have executed this Bill of Sale as of the day and year first written above.

ACELRX PHARMACEUTICALS, INC.

By: /s/ Timothy E. Morris
Name: Timothy E. Morris
Title: Chief Financial Officer

ARPI LLC

By: AcelRx Pharmaceuticals, Inc., its sole Member

By: /s/ Timothy E. Morris
Name: Timothy E. Morris
Title: Chief Financial Officer

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EXHIBIT B

FORM OF LICENSEE INSTRUCTION

September 18, 2015

VIA FACSIMILE: +49-241-569-3547

Grünenthal GmbH
D-52099 Aachen
Germany
Attention: Global Legal
Facsimile: +49-241-569-3547

Ladies and Gentlemen:

Reference is hereby made to that certain Collaboration and License Agreement, dated as of December 16, 2013, by and between AcelRx Pharmaceuticals, Inc. a Delaware corporation ("AcelRx"), and Grünenthal GmbH, a German company ("Grünenthal") (the "License Agreement") as amended to the date hereof, including by that certain Consent Agreement, dated as of July 17, 2015, between AcelRx and Grünenthal.

Effective as of the date of this letter, (i) as evidenced by that certain Bill of Sale, dated as of September 18, 2015, between ARPI LLC, a Delaware limited liability company (the "Purchaser"), and AcelRx (the "Bill of Sale"), a copy of which is attached hereto as Appendix A, AcelRx is selling, assigning, transferring, granting, contributing and conveying to the Purchaser the "Purchased Assets", as more fully described in the Bill of Sale, and, simultaneously therewith, (ii) the Purchaser is selling, assigning, transferring, granting, contributing and conveying a portion of the Purchased Assets to PDL BioPharma, Inc.

Accordingly, you are hereby irrevocably and unconditionally directed to make all payments pursuant to Section 7.3 of the License Agreement, all payments for the first four milestones set forth in Section 7.2(b) of the License Agreement, and all payments pursuant to the last sentence of Section 10.3(b) of the License Agreement, together with any interest on late payments thereof and compensation for any underpayments thereof required to be made under the License Agreement on or after September 18, 2015 (collectively, the "Royalties"), by wire transfer of immediately available funds in United States dollars to the following account:

Bank name: [*]

ABA Number: [*]

Account Name: [*]

Account Number: [*]

Attention: [*]

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Ref: [*]

The Purchaser may from time to time designate by ten (10) days prior written notice a new account to which you should thereafter make all such payments.

Your obligation to make payments of (i) Royalties shall be discharged only by payment in accordance with the preceding instructions regarding payment of Royalties to the account listed directly above (the "AcelRx SPE Collection Account"), unless and until instructed otherwise by the Purchaser and (ii) amounts that do not constitute Royalties, only by payment in accordance with the following paragraph unless and until instructed otherwise by AcelRx.

All payments under the License Agreement that do not constitute Royalties (such as all milestone payments under Section 7.2(a) of the License Agreement, all milestone payments under Section 7.2(b) of the License Agreement other than the first four milestone payments set forth under Section 7.2(b) of the License Agreement, all payments under Section 7.2(c) of the License Agreement and all Trademark and Supply Fees under the License Agreement, and all reimbursable development expenses) should continue to be made to AcelRx in accordance with the instructions provided to you under the License Agreement, until further notice from AcelRx.

In addition, commencing immediately, and until instructed otherwise by AcelRx, you are hereby irrevocably and unconditionally instructed to send a copy of all reports sent or required to be sent to AcelRx pursuant to Section 7.5 of the License Agreement, to the following persons at the indicated addresses below:

Purchaser:

ARPI LLC
351 Galveston Drive
Redwood City, California 94063
Attention: Chief Operating Officer
Telephone: 650-216-3500
Facsimile: 650-216-6500
Email: tmorris@acelrx.com

with a copy to:

PDL BioPharma, Inc.
932 Southwood Blvd.
Incline Village, Nevada 89451
Attention: General Counsel
Telephone: 775-832-8500
Facsimile: 775-832-8501
Email: general.counsel@pdl.com

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with a copy to:

AcelRx Pharmaceuticals, Inc.
351 Galveston Drive
Attention: Chief Executive Officer
Telephone: 650-216-3500
Facsimile: 650-216-6500
Email: hrosen@acelrx.com

If you have any questions or require additional information, please feel free to contact AcelRx at any time. Thank you for your cooperation regarding this matter.

Very truly yours,

ACELRX PHARMACEUTICALS, INC.

By: _____
Name:
Title:

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EXHIBIT C

INTELLECTUAL PROPERTY MATTERS

COUNTRY	PATENT NO./ APPLICATION NO.	STATUS/ EXPIRATION DATE	INDEPENDENT CLAIM
[*]	[*]	[*]	[*]

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EXHIBIT D

PRESS RELEASE

Print Page Close Window

News Release

ARTICLE XAcelRx Pharmaceuticals Receives $65 Million from the Partial Sale of Zalviso™ European Royalties and Commercial Milestones to PDL BioPharma

REDWOOD CITY, Calif., Sept. 21, 2015 /PRNewswire/ -- AcelRx Pharmaceuticals, Inc. (Nasdaq: ACRX), a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for the treatment of acute and breakthrough pain, today announced the monetization of the expected royalty stream from the sales of Zalviso™ (sufentanil sublingual tablet system) in the European Union by its commercial partner Grunenthal GmbH. Gross proceeds from the sale are $65 million from PDL BioPharma (NASDAQ: PDLI). Specifically, PDL will receive 75% of the European royalties under the Grunenthal license as well as 80% of the first four commercial milestones, subject to a capped amount. AcelRx will receive 25% of the royalties, 20% of the first four commercial milestones, 100% of the remaining commercial milestones and all development milestones, including a potential $15 million payment for the approval of the Zalviso MAA. The proceeds from the transaction will provide AcelRx with additional operating capital, which will be used for general corporate purposes, including regulatory activities associated with ARX-04 and Zalviso.

Timothy E. Morris, chief financial officer of AcelRx Pharmaceuticals, commented, "This transaction provides AcelRx with significant capital in a non-dilutive manner. It will increase our estimated cash at year end to over $100 million and should provide sufficient capital to complete regulatory submissions for ARX-04 in the U.S. and Europe, and to conduct limited additional work on Zalviso, if needed, in preparation for re-submitting a New Drug Application to the U.S. Food and Drug Administration."

The transaction will be treated as a sale for tax purposes. AcelRx has established a wholly owned subsidiary, ARPI LLC, to facilitate the transaction. Credit Suisse acted as sole structuring and financial advisor to AcelRx in connection with the transaction. AcelRx was represented by Cooley LLP, PDL by Gibson, Dunn & Crutcher LLP and Credit Suisse by Cadwalader, Wickersham & Taft LLP.

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Separately, concurrently with the closing of the royalty monetization, AcelRx amended its existing credit facility with Hercules Technology Growth Capital, Inc. (NYSE: HTGC), which includes an interest only period from October 1, 2015 through March 31, 2016 (with the potential for further extension to September 30, 2016 upon satisfaction of certain conditions). Loans under the credit facility will mature on October 31, 2017. In connection with the amendment, AcelRx reduced the exercise price of warrants previously issued to Hercules in connection with the credit facility.

About AcelRx Pharmaceuticals, Inc.
AcelRx Pharmaceuticals, Inc. is a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for the treatment of acute pain. In the US, the Company's late-stage pipeline includes ARX-04 (sufentanil sublingual tablet, 30 mcg) for the treatment of moderate-to-severe acute pain in a medically supervised setting; and Zalviso™ (sufentanil sublingual tablet system) for the management of moderate-to-severe acute pain in adult patients in the hospital setting.

ARX-04 delivers 30 mcg sufentanil sublingual, a high therapeutic index opioid, through a disposable, pre-filled, single-dose applicator (SDA). AcelRx has reported positive results from the pivotal Phase 3 SAP301 ambulatory surgery study, and will be advancing ARX-04 into a study in emergency room patients in 2015. Zalviso delivers 15 mcg sufentanil sublingual tablets through a non-invasive delivery route via a pre-programmed, patient-controlled analgesia device. In response to the New Drug Application (NDA) AcelRx submitted to the U.S. Food and Drug Administration (FDA) seeking approval for Zalviso, the Company received a Complete Response Letter (CRL) on July 25, 2014. The FDA has requested an additional clinical study prior to the resubmission of the Zalviso NDA.

The Company has two additional pain treatment product candidates, ARX-02 and ARX-03, which have completed Phase 2 clinical development. For additional information about AcelRx's clinical programs, please visitwww.acelrx.com.

Forward Looking Statements
This press release contains forward-looking statements, including, but not limited to, statements related to potential milestones payments under the Grunenthal agreement and expected royalty stream from the sales of Zalviso in the European Union by Grunenthal; future financial results, including anticipated cash balance at year-end 2015 and use of proceeds from the sale of royalty and milestone payments to PDL BioPharma; potential extension of the interest-only period under amended credit facility with Hercules Technology Growth Capital, Inc.; the process and timing of anticipated future development of AcelRx's product candidates, including Zalviso and ARX-04, including the timing and potential additional clinical work necessary for resubmission of Zalviso NDA to the FDA; potential approval of Zalviso and the timing of commercial launch of Zalviso in Europe; and the anticipated timing of the emergency room study for ARX-04. These forward-looking statements are based on AcelRx's current expectations and inherently involve significant risks and uncertainties. AcelRx's actual results and the timing of events could differ materially from those anticipated in such forward-looking

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statements as a result of these risks and uncertainties, which include, without limitation, risks related to: any delays or inability to obtain and maintain regulatory approval of its product candidates, including Zalviso and ARX-04, in the United States and Europe; any delay of the European Commission's decision regarding Zalviso; inability to successfully manufacture Zalviso to meet the requirements of Grunenthal and potential delays in the timing of the European launch; AcelRx's ability to receive milestones and royalty payments under the Grunenthal agreement; the market potential for its product candidates, including Zalviso and ARX-04, in the United States and Europe; its ability to timely resubmit Zalviso NDA to the FDA and to receive regulatory approval for Zalviso, that fact that FDA may dispute or interpret differently positive clinical results obtained to date from the pivotal Phase 3 SAP301 ambulatory surgery study of ARX-04; its ability to obtain sufficient financing to receive regulatory approval for and commercialize Zalviso in the United States and Europe, and complete Phase 3 clinical development of ARX-04; the success, cost and timing of all product development activities and clinical trials, including the planned Phase 3 ARX-04 emergency room trial; the accuracy of AcelRx's estimates regarding expenses, capital requirements and use of proceeds from the sale of royalty and milestone payments to PDL BioPharma; and other risks detailed in the "Risk Factors" and elsewhere in AcelRx's U.S. Securities and Exchange Commission filings and reports, including its Quarterly Report on Form 10-Q filed with the SEC on August 4, 2015. AcelRx undertakes no duty or obligation to update any forward-looking statements contained in this release as a result of new information, future events or changes in its expectations.

AcelRx Pharmaceuticals, Inc.

Logo - http://photos.prnewswire.com/prnh/20130226/MM67303LOGO

To view the original version on PR Newswire, visit:http://www.prnewswire.com/news-releases/acelrx-pharmaceuticals-receives-65-million-from-the-partial-sale-of-zalviso-european-royalties-and-commercial-milestones-to-pdl-biopharma-300146003.html

SOURCE AcelRx Pharmaceuticals, Inc.

Timothy E. Morris, Chief Financial Officer, 650.216.3511, tmorris@acelrx.com, Brian Korb, The Trout Group LLC, 646.378.2923, bkorb@troutgroup.com

EXHIBIT D-3

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EXHIBIT E

PURCHASER ACCOUNT:

Bank name:	[*]
ABA Number:	[*]
Account Number:	[*]
Account Name:	[*]
Attention:	[*]
Ref:	[*]

COMPANY COLLECTION ACCOUNT:

Bank name:	[*]
ABA Number:	[*]
Account Name:	[*]
Account Number:	[*]
Attention:	[*]
Ref:	[*] [*]

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EXHIBIT F

SELLER ACCOUNT

Bank name:	[*]
ABA Number:	[*]
Account Number:	[*]
Swift Code	
International Wires:	[*]
Account Name:	[*]
Attention:	[*]
AcelRx Tax ID #:	[*]

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EXHIBIT G-1

FINANCING STATEMENT

[UCC-1 Financing Statement]

Exhibit A to UCC-1 Financing Statement with AcelRx Pharmaceuticals, Inc., as Debtor/Seller and ARPI LLC, as Secured Party/Buyer

Item 4: Description of Collateral

All of Debtor's right, title and interest in, to and under the License Agreement to receive the Royalties Interest, whether now owned or existing or hereafter acquired or arising and wherever located, all "accounts" (within the meaning of the UCC) relating thereto, the other rights and assets included in the Purchased Assets, and any and all additions and accessions to any of the foregoing, all improvements thereto, all substitutions and replacements therefor and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts).

The following terms shall have the following meanings, with such meanings being equally applicable to both the singular and plural forms of the terms defined:

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means 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, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

"Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Debtor and the Secured Party.

"Capital Securities" means, with respect to any Person, all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) of such Person's capital, whether now outstanding or issued after the Closing Date, including common shares, ordinary shares, preferred shares, membership interests or share capital in a limited liability company or other Person, limited or general partnership interests in a partnership, beneficial interests in trusts or any other equivalent of such ownership interest or any options, warrants and other rights to acquire such shares or interests, including rights to allocations and distributions, dividends, redemption payments and liquidation payments.

"Closing Date" means September 18, 2015.

"Excluded Payments" means all amounts due or paid to the Debtor or any of its Affiliates other than the Royalties, including all amounts due or paid to the Debtor or any of its Affiliates pursuant to Section 7.1, Section 7.2(a), Section 7.2(b) (other than the first four milestone payments thereunder), Section 7.2(c) or Section 7.4 of the License Agreement.

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

"First Commercial Sale" means "First Commercial Sale" as defined in Section 1.51 of the License Agreement.

"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any country or jurisdiction.

"Grünenthal" means Grünenthal GmbH, a German company.

"License Agreement" means that certain Collaboration and License Agreement, dated as of December 16, 2013, between the Debtor and the Licensee, as amended from time to time (including by the Licensee Consent and, for amendments entered into following the Closing Date, amended in a manner consistent with the terms of the PSA).

"Licensee" means Grünenthal, in its capacity as licensee under the License Agreement.

"Licensee Consent" means that certain letter agreement, dated July 17, 2015, by and between the Debtor and the Licensee, regarding among other things the transfer of the Purchased Assets to the Secured Party and the further transfer of certain of the Purchased Assets by the Secured Party to the Subsequent Purchaser.

"Licensee Instruction" means the irrevocable notice and direction to the Licensee in the form set forth in Exhibit B to the PSA.

"Licensor" means the Debtor in its capacity as licensor under the License Agreement.

"Licensor Retained Amounts" means in the aggregate (i) the portion of Royalties payable or paid by the Licensee from time to time, and any interest on late payments thereof, that is in each case in excess of the amounts constituting the Royalties Interest (including interest on late payments thereof), (ii) without duplication of any of the amounts described in clause (i), any amount deemed Licensor Retained Amounts under the third sentence of Section 5.4(b) of the PSA or the third sentence of Section 5.4(b) of the SPSA, and (iii) all payments that constitute Excluded Payments.

"Manufacture and Supply Agreement" means the Manufacture and Supply Agreement, dated as of December 16, 2013, between Debtor and Grünenthal, as amended from time to time.

"New Arrangement" has the meaning set forth in Section 5.6(a) of the PSA.

"New License Agreement" has the meaning set forth in Section 5.6(a) of the PSA.

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any intellectual property rights that are Patents.

"Patents" means "Patents" as defined in Section 1.91 of the License Agreement.

"Permitted Set-off" means any Set-off against royalties or other amounts payable to Seller by Licensee under the License Agreement that is expressly permitted under Sections 7.3(b), 7.3(c) or 7.3(d) of the License Agreement.

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

"PSA" means that certain Purchase and Sale Agreement, dated as of September 18, 2015, by and between the Debtor and the Secured Party.

"Purchased Assets" means, collectively, the Debtor's (a) right, title and interest in, to and under the License Agreement or any New Arrangement or New License Agreement to receive an amount of Royalties equal to the Royalties Interest, (b) right, under the License Agreement, to receive reports pursuant to Section 7.5 of the License Agreement (but not to the exclusion of the Debtor) or any corresponding provision of any New Arrangement or New License Agreement, (c) right to receive the results of any audit conducted pursuant to Section 8.5 of the License Agreement (but not to the exclusion of the Debtor) or any corresponding provision of any New Arrangement or New License Agreement, (d) right to receive interest payable or paid pursuant to the License Agreement in respect of late payments of amounts constituting the Royalties Interest or any corresponding provision of any New Arrangement or New License Agreement, and (e) rights to enforce the receipt of payment and the payment and performance by the Licensee of the obligations set forth in the License Agreement or any New Arrangement or New License Agreement corresponding to the rights described in subclauses (a) through (d) above, in accordance with the License Agreement (or any New Arrangement or New License Agreement, as applicable), the PSA and the Servicing Agreement. The Purchased Assets do not include any Licensor Retained Amounts.

"Purchaser Portion" means (a) with respect to (i) all Royalties other than the first four milestone payments under Section 7.2(b) of the License Agreement and (ii) all other related amounts included in the definition of "Royalties" with respect to the Royalties described in clause (i), seventy-five percent (75%) of a specified amount that is payable or has been paid, and (b) solely with respect to Royalties that consist of the first four milestone payments under Section 7.2(b) of the License Agreement and all other related amounts included in the definition of "Royalties" with respect to such Royalties, eighty percent (80%) of a specified amount that is payable or has been paid.

"Royalties" has the meaning set forth in Section 1.1 of the PSA.

"Royalties Commencement Date" means the date after the Closing Date of the First Commercial Sale in the first country in the Territory in which such First Commercial Sale occurs.

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"Royalties Interest" means the Purchaser Portion of Royalties.

"Royalty Reduction" has the meaning set forth in Section 3.13(f) of the PSA; provided, however, that "Royalty Reduction" shall not include any Set-offs.

"Royalty Term" means the period commencing on the Royalties Commencement Date, and ending on the last day of the last to expire "Royalty Term" as defined in Section 7.3(e) of the License Agreement.

"SACA" means the Security and Control Agreement, dated as of September 18, 2015, among the Debtor, the Secured Party, the Subsequent Purchaser and U.S. Bank National Association as initial collateral agent and initial depositary agent thereunder.

"Servicing Agreement" means that certain Servicing Agreement, dated as of September 18, 2015, among the Secured Party, the Debtor and the Subsequent Purchaser.

"Set-off" means any set-off, off-set, charge, reduction or similar deduction; provided, however, that "Set-off" shall not include any Royalty Reduction.

"SPSA" means that certain Subsequent Purchase and Sale Agreement, dated as of September 18, 2015, between the Secured Party and the Subsequent Purchaser.

"Subsequent Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Secured Party and the Subsequent Purchaser.

"Subsequent Purchaser" means PDL BioPharma, Inc.

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, sales, use, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

"Tax Return" means any report, return, form (including elections, declarations, statements, amendments, claims for refund, schedules, information returns or attachments thereto) or other information supplied or required to be supplied to a Governmental Authority with respect to Taxes.

"Territory" means "Territory" as defined under Section 1.111 of the License Agreement, but including Australia only for so long as Australia remains part of the Territory pursuant to the License Agreement.

"Transaction Documents" means the PSA, the Bill of Sale, the Licensee Instruction, the SPSA, the Subsequent Bill of Sale, the Servicing Agreement and the SACA.

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided, that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(d) of the PSA is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of Delaware, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of the PSA and any financing statement relating to such perfection or effect of perfection or non-perfection.

"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

It is intended by Debtor and Secured Party that all right, title and interest of the Debtor in and to the Purchased Assets is being conveyed on an absolute basis to Secured Party under the transactions between such parties, and the use of the terms "Debtor," "Secured Party," and "Collateral" shall not be construed to evidence a contrary intent, nor shall this Financing Statement constitute an admission or acknowledgement by Debtor or Secured Party or any other Person that the transactions between Debtor and Secured Party create only a security interest in the foregoing described property described as the Purchased Assets herein.

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT G-2

FINANCING STATEMENT

[UCC-1 Financing Statement]

Exhibit A to UCC-1 Financing Statement with AcelRx Pharmaceuticals, Inc., as Debtor and ARPI LLC, as Secured Party

Item 4: Description of Collateral

All of Debtor's right, title and interest in, to and under the License Agreement to receive the Royalties Interest, whether now owned or existing or hereafter acquired or arising and wherever located, all "accounts" (within the meaning of the UCC) relating thereto, the other rights and assets included in the Purchased Assets, and any and all additions and accessions to any of the foregoing, all improvements thereto, all substitutions and replacements therefor and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts).

The following terms shall have the following meanings, with such meanings being equally applicable to both the singular and plural forms of the terms defined:

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means 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, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

"Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Debtor and the Secured Party.

"Capital Securities" means, with respect to any Person, all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) of such Person's capital, whether now outstanding or issued after the Closing Date, including common shares, ordinary shares, preferred shares, membership interests or share capital in a limited liability company or other Person, limited or general partnership interests in a partnership, beneficial interests in trusts or any other equivalent of such ownership interest or any options, warrants and other rights to acquire such shares or interests, including rights to allocations and distributions, dividends, redemption payments and liquidation payments.

"Closing Date" means September 18, 2015.

"Excluded Payments" means all amounts due or paid to the Debtor or any of its Affiliates other than the Royalties, including all amounts due or paid to the Debtor or any of its Affiliates pursuant to Section 7.1, Section 7.2(a), Section 7.2(b) (other than the first four milestone payments thereunder), Section 7.2(c) or Section 7.4 of the License Agreement.

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

"First Commercial Sale" means "First Commercial Sale" as defined in Section 1.51 of the License Agreement.

"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any country or jurisdiction.

"Grünenthal" means Grünenthal GmbH, a German company.

"License Agreement" means that certain Collaboration and License Agreement, dated as of December 16, 2013, between the Debtor and the Licensee, as amended from time to time (including by the Licensee Consent and, for amendments entered into following the Closing Date, amended in a manner consistent with the terms of the PSA).

"Licensee" means Grünenthal, in its capacity as licensee under the License Agreement.

"Licensee Consent" means that certain letter agreement, dated July 17, 2015, by and between the Debtor and the Licensee, regarding among other things the transfer of the Purchased Assets to the Secured Party and the further transfer of certain of the Purchased Assets by the Secured Party to the Subsequent Purchaser.

"Licensee Instruction" means the irrevocable notice and direction to the Licensee in the form set forth in Exhibit B to the PSA.

"Licensor" means the Debtor in its capacity as licensor under the License Agreement.

"Licensor Retained Amounts" means in the aggregate (i) the portion of Royalties payable or paid by the Licensee from time to time, and any interest on late payments thereof, that is in each case in excess of the amounts constituting the Royalties Interest (including interest on late payments thereof), (ii) without duplication of any of the amounts described in clause (i), any amount deemed Licensor Retained Amounts under the third sentence of Section 5.4(b) of the PSA or the third sentence of Section 5.4(b) of the SPSA, and (iii) all payments that constitute Excluded Payments.

"Manufacture and Supply Agreement" means the Manufacture and Supply Agreement, dated as of December 16, 2013, between Debtor and Grünenthal, as amended from time to time.

"New Arrangement" has the meaning set forth in Section 5.6(a) of the PSA.

"New License Agreement" has the meaning set forth in Section 5.6(a) of the PSA.

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"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any intellectual property rights that are Patents.

"Patents" means "Patents" as defined in Section 1.91 of the License Agreement.

"Permitted Set-off" means any Set-off against royalties or other amounts payable to Seller by Licensee under the License Agreement that is expressly permitted under Sections 7.3(b), 7.3(c) or 7.3(d) of the License Agreement.

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

"PSA" means that certain Purchase and Sale Agreement, dated as of September 18, 2015, by and between the Debtor and the Secured Party.

"Purchased Assets" means, collectively, the Debtor's (a) right, title and interest in, to and under the License Agreement or any New Arrangement or New License Agreement to receive an amount of Royalties equal to the Royalties Interest, (b) right, under the License Agreement, to receive reports pursuant to Section 7.5 of the License Agreement (but not to the exclusion of the Debtor) or any corresponding provision of any New Arrangement or New License Agreement, (c) right to receive the results of any audit conducted pursuant to Section 8.5 of the License Agreement (but not to the exclusion of the Debtor) or any corresponding provision of any New Arrangement or New License Agreement, (d) right to receive interest payable or paid pursuant to the License Agreement in respect of late payments of amounts constituting the Royalties Interest or any corresponding provision of any New Arrangement or New License Agreement, and (e) rights to enforce the receipt of payment and the payment and performance by the Licensee of the obligations set forth in the License Agreement or any New Arrangement or New License Agreement corresponding to the rights described in subclauses (a) through (d) above, in accordance with the License Agreement (or any New Arrangement or New License Agreement, as applicable), the PSA and the Servicing Agreement. The Purchased Assets do not include any Licensor Retained Amounts.

"Purchaser Portion" means (a) with respect to (i) all Royalties other than the first four milestone payments under Section 7.2(b) of the License Agreement and (ii) all other related amounts included in the definition of "Royalties" with respect to the Royalties described in clause (i), seventy-five percent (75%) of a specified amount that is payable or has been paid, and (b) solely with respect to Royalties that consist of the first four milestone payments under Section 7.2(b) of the License Agreement and all other related amounts included in the definition of "Royalties" with respect to such Royalties, eighty percent (80%) of a specified amount that is payable or has been paid.

"Royalties" has the meaning set forth in Section 1.1 of the PSA.

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"Royalties Commencement Date" means the date after the Closing Date of the First Commercial Sale in the first country in the Territory in which such First Commercial Sale occurs.

"Royalties Interest" means the Purchaser Portion of Royalties.

"Royalty Reduction" has the meaning set forth in Section 3.13(f) of the PSA; provided, however, that "Royalty Reduction" shall not include any Set-offs.

"Royalty Term" means the period commencing on the Royalties Commencement Date, and ending on the last day of the last to expire "Royalty Term" as defined in Section 7.3(e) of the License Agreement.

"SACA" means the Security and Control Agreement, dated as of September 18, 2015, among the Debtor, the Secured Party, the Subsequent Purchaser and U.S. Bank National Association as initial collateral agent and initial depositary agent thereunder.

"Servicing Agreement" means that certain Servicing Agreement, dated as of September 18, 2015, among the Secured Party, the Debtor and the Subsequent Purchaser.

"Set-off" means any set-off, off-set, charge, reduction or similar deduction; provided, however, that "Set-off" shall not include any Royalty Reduction.

"SPSA" means that certain Subsequent Purchase and Sale Agreement, dated as of September 18, 2015, between the Secured Party and the Subsequent Purchaser.

"Subsequent Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Secured Party and the Subsequent Purchaser.

"Subsequent Purchaser" means PDL BioPharma, Inc.

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, sales, use, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

"Tax Return" means any report, return, form (including elections, declarations, statements, amendments, claims for refund, schedules, information returns or attachments thereto) or other information supplied or required to be supplied to a Governmental Authority with respect to Taxes.

"Territory" means "Territory" as defined under Section 1.111 of the License Agreement, but including Australia only for so long as Australia remains part of the Territory pursuant to the License Agreement.

"Transaction Documents" means the PSA, the Bill of Sale, the Licensee Instruction, the SPSA, the Subsequent Bill of Sale, the Servicing Agreement and the SACA.

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided, that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(d) of the PSA is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of Delaware, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of the PSA and any financing statement relating to such perfection or effect of perfection or non-perfection.

"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

This Financing Statement is being filed for precautionary purposes and shall not constitute an admission or acknowledgement by Debtor or Secured Party, or any other person, that the parties to the PSA and related documents intend to enter into any transaction other than a true and absolute sale of the property described as the Purchased Assets herein. In the event that, contrary to the intentions of the parties, the transfer contemplated by the PSA and related documents is held not to be a sale, this precautionary Financing Statement is filed to perfect a first priority continuing security interest in and to all of the Debtor's right, title and interest in, to and under the Purchased Assets and any interest thereon, and any and all additions and accessions to any of the foregoing, all improvements thereto, all substitutions and replacements therefor and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts), and, in such event, the PSA shall constitute a security agreement.

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT H

FORM OF ASSUMPTION AND ACKNOWLEDGEMENT

ASSUMPTION AND ACKNOWLEDGEMENT

AcelRx Pharmaceuticals, Inc. ("AcelRx") and [●] ("Acquiror") are executing and delivering this ASSUMPTION AND ACKNOWLEDGEMENT (this "Acknowledgement"), effective as of [●], in connection with a Specified Transaction (as defined below).

WHEREAS, reference is hereby made to that certain Purchase and Sale Agreement, dated as of [●], by and between AcelRx and ARPI LLC (the "PSA"), with any capitalized terms used herein but not otherwise defined herein to have the meanings ascribed to such terms in the PSA;

WHEREAS, AcelRx and Acquiror have entered, or will enter, into an agreement providing for a transaction with respect to which, in accordance with the Transaction Documents, AcelRx is obligated to cause Acquiror to assume all of AcelRx's obligations under the Transaction Documents and the License Agreement by executing and delivering this Acknowledgment (such transaction, a "Specified Transaction"); and

WHEREAS, AcelRx and Acquiror seek to comply with the terms of the Transaction Documents applicable to the Specified Transaction by executing, delivering and performing under this Acknowledgement.

NOW, THEREFORE, in consideration of the premises and the mutual agreements, representations and warranties set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, AcelRx and Acquiror covenant and agree as follows:

1. Acquiror hereby acknowledges and confirms its assumption of the obligations of AcelRx under the agreements listed on Schedule A hereto (the "Assumed Agreements") as a result of the consummation of the Specified Transaction, and in connection therewith, Acquiror shall pay, discharge, perform or otherwise satisfy, and assumes and agrees to be bound by, the Assumed Agreements, in the place and stead of AcelRx without any modification or alteration but subject, in all respects, to the rights and remedies of AcelRx under the Assumed Agreements.

2. Acquiror and AcelRx agree to, at all times from and after the date hereof, take such additional actions with respect to this Acknowledgement, and agree to execute such documents as may be reasonably requested (including by any counterparty to or express third party beneficiary of any of the Transaction Documents or this Acknowledgement and, in each case, any rightful successor and/or permitted assign thereof), for the purpose of giving effect to, evidencing or giving notice of the agreements described herein, or for compliance with the PSA and other Transaction Documents.

3. AcelRx represents and warrants that Schedule A contains a complete and accurate list of, among other agreements listed there, the Transaction Documents to which AcelRx is a party and the License Agreement, as in effect on the date hereof, and, on or prior to the date hereof, AcelRx has provided Acquiror with a true, correct and complete copy of each of the Assumed Agreements, subject to any confidentiality restrictions contained therein.

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

4. This Acknowledgement shall be binding upon the parties hereto and shall inure to the benefit of Acquiror, AcelRx, the Subsequent Purchaser (as an express third party beneficiary hereof) and their respective rightful successors and/or permitted assigns.

5. This Acknowledgement shall be governed by, and construed in accordance with, the internal laws of the State of New York, without regard to the laws of any other jurisdiction that might be applied because of the conflicts of laws principles of the State of New York.

6. This Acknowledgement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Acknowledgement shall become effective when each party hereto shall have received a counterpart hereof signed by the other party hereto. Any counterpart may be executed by facsimile or other similar means of electronic transmission, including "PDF", and such facsimile or other electronic transmission shall be deemed an original.

[*The remainder of this page has been intentionally left blank.*]

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

ECELRX PHARMACEUTICALS, INC.

By: _____
Name:
Title:

[ACQUIROR]

By: _____
Name:
Title:

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Schedule A ’1

1. Collaboration and License Agreement, dated as of December 16, 2013, by and between AcelRx Pharmaceuticals, Inc. and Grünenthal GmbH.

2. First Amendment to the Collaboration and License Agreement, dated as of July 17, 2015, by and between AcelRx Pharmaceuticals, Inc. and Grünenthal GmbH.

3. Consent Agreement, dated as of July 17, 2015, by and between AcelRx Pharmaceuticals, Inc. and Grünenthal GmbH.

4. Letter, dated as of September 18, 2015, from AcelRx Pharmaceuticals, Inc. to Grünenthal GmbH.

5. Manufacture and Supply Agreement, dated as of December 16, 2013, by and between AcelRx Pharmaceuticals, Inc. and Grünenthal GmbH.

6. First Amendment to the Manufacture and Supply Agreement, dated as of July 17, 2015, by and between AcelRx Pharmaceuticals, Inc. and Grünenthal GmbH.

7. Purchase and Sale Agreement, dated as of September 18, 2015, by and between AcelRx Pharmaceuticals, Inc. and ARPI LLC.

8. Servicing Agreement, dated as of September 18, 2015, by and among PDL BioPharma, Inc., AcelRx Pharmaceuticals, Inc., and ARPI LLC (the “Servicing Agreement”).

9. Bill of Sale, dated as of September 18, 2015, by and between AcelRx Pharmaceuticals, Inc. and ARPI LLC.

10. Security and Control Agreement, dated as of September 18, 2015, by and among ARPI LLC, PDL BioPharma, Inc., AcelRx Pharmaceuticals, Inc., individually and in its capacity as the initial servicer under the Servicing Agreement (including its successors thereunder) and U.S. Bank National Association.

11. Operating Agreement of ARPI LLC, dated as of September 18, 2015, by AcelRx Pharmaceuticals, Inc.

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1 NTD: Schedule A to be updated as necessary to accurately reflect all agreements to which AcelRx is a party that are directly related to AcelRx’s performance under the Transaction Documents and any amendments thereto, as well as any restatements or substitute or replacement agreements, including any entered into with respect to a New Arrangement.

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SCHEDULE 1.1

[*]

[ ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

SCHEDULE 3.11

Intellectual Property Matters

None.

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EXECUTION VERSION

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit 10.7

SUBSEQUENT PURCHASE AND SALE AGREEMENT

between

ARPI LLC,
as Seller,

and

PDL BIOPHARMA, INC.,
as Purchaser

Dated as of September 18, 2015

TABLE OF CONTENTS

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[ ] = Certain confidential information contained in this document, marked by brackets, is filed with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibits	
Exhibit A	Form of Bill of Sale
Exhibit B	Form of Press Release
Exhibit C	Purchaser Account
Exhibit D	Seller Account
Exhibit E-1	Financing Statement (Sale)
Exhibit E-2	Financing Statement (Precautionary)
Exhibit F	Form of Opinion

Schedule	
Schedule 1.1	[*]

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SUBSEQUENT PURCHASE AND SALE AGREEMENT

This SUBSEQUENT PURCHASE AND SALE AGREEMENT (this "SPSA"), dated as of September 18, 2015, is entered into between ARPI LLC, a Delaware limited liability company (the "Seller"), and PDL BioPharma, Inc., a Delaware corporation (the "Purchaser").

W I T N E S S E T H :

WHEREAS, pursuant to the PSA (as defined below), the Seller has acquired the right to receive a portion of Royalties (as defined below) payable during the Royalty Term (as defined below) under the License Agreement (as defined below), and other assets described in the PSA; and

WHEREAS, the Seller desires to sell, assign, transfer, convey, contribute and grant to the Purchaser, and the Purchaser desires to purchase, acquire and accept from the Seller, the Purchased Interest described herein, upon and subject to the terms and conditions set forth in this SPSA.

NOW, THEREFORE, in consideration of the premises and the mutual agreements, representations and warranties set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties covenant and agree as follows:

ARTICLE I

DEFINED TERMS AND RULES OF CONSTRUCTION

Section 1.1 Defined Terms. The following terms, as used herein, shall have the following respective meanings:

"AcelRx" means AcelRx Pharmaceuticals, Inc., a Delaware corporation.

"AcelRx Intellectual Property Rights" means the "AcelRx Technology" and the "AcelRx Trademarks" as defined in Sections 1.8 and 1.9 of the License Agreement, respectively.

"AcelRx Patents" means the "AcelRx Patents" as defined in Section 1.7 of the License Agreement.

"Actual Knowledge" means, [*].

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means 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, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"Agent" has the meaning set forth in the Servicing Agreement.

"Applicable Law" means, with respect to any Person, all laws, rules, regulations and orders of Governmental Authorities applicable to such Person or any of its properties or assets.

"Bankruptcy Event" means the occurrence of any of the following in respect of any Person: (a) an admission in writing by such Person of its inability to pay its debts generally or as they become due or a general assignment by such Person for the benefit of creditors; (b) the filing of any petition or answer by such Person seeking to adjudicate itself as bankrupt or insolvent, or seeking for itself any liquidation, winding-up, reorganization, arrangement, adjustment, protection, relief or composition of such Person or its debts under any law relating to bankruptcy, insolvency, receivership, winding-up, liquidation, reorganization, examination, relief of debtors or other similar Applicable Law now or hereafter in effect, or seeking, consenting to or acquiescing in the entry of an order for relief in any case under any such Applicable Law, or the appointment of or taking possession by a receiver, trustee, custodian, liquidator, examiner, assignee, sequestrator or other similar official for such Person or for any substantial part of its property; (c) corporate or other entity action taken by such Person to authorize any of the actions set forth in clause (a) or (b) of this definition; or (d) without the consent or acquiescence of such Person, the entering of an order for relief or approving a petition for relief or reorganization or any other petition seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or other similar relief under any present or future bankruptcy, insolvency or similar Applicable Law, or the filing of any such petition against such Person, or, without the consent or acquiescence of such Person, the entering of an order appointing a trustee, custodian, receiver or liquidator of such Person or of all or any substantial part of the property of such Person, in each case where such petition or order shall remain unstayed or shall not have been stayed or dismissed within thirty (30) days.

"Bill of Sale" means that certain bill of sale, dated as of the Closing Date, executed by the Seller and the Purchaser, substantially in the form of Exhibit A.

"Business Day" means any day that is not (i) a Saturday, Sunday or other day on which commercial banks in San Francisco, California, New York City or Aachen, Germany, are authorized or required by Applicable Law to remain closed or (ii) any of the nine (9) consecutive calendar days beginning on December 24th and continuing through January 1st of each calendar year commencing with the calendar year 2015. For the avoidance of doubt, any reference in this SPSA to "days" shall mean calendar days.

"Capital Securities" means, with respect to any Person, all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) of such Person's capital, whether now outstanding or issued after the Closing Date, including common shares, ordinary shares, preferred shares, membership interests or share capital in a limited liability company or other Person, limited or general partnership interests in a partnership, beneficial interests in trusts or any other equivalent of such ownership interest or any options, warrants and other rights to acquire such shares or interests, including rights to allocations and distributions, dividends, redemption payments and liquidation payments.

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"Capped Payment Amount" has the meaning set forth in Section 2.1(a)(i).

"Closing" has the meaning set forth in Section 6.1.

"Closing Date" has the meaning set forth in Section 6.1.

"Code" means the U.S. Internal Revenue Code of 1986, as amended, and the regulations thereunder.

"Collateral Agent" means the financial institution serving as collateral agent under the SACA, which on the Closing Date is U.S. Bank National Association.

"Confidential Information" means, except to the extent not included as Confidential Information in accordance with Section 5.2, this SPSA, the other Transaction Documents, Royalty Reports received by the Purchaser after the Closing Date, audit reports received by the Purchaser after the Closing Date pursuant to Section 5.7 of this SPSA, and all other reports, notices, correspondence and other documents received by the Purchaser after the Closing Date pursuant to the provisions of this SPSA, but for purposes of clarity, excluding in each case the Pre-Closing Confidential Information.

"Confidentiality Agreement" means that certain letter agreement, dated July 30, 2015, by and between AcelRx and the Purchaser.

"Covered Taxes" means [*].

"Depositary Agent" means the financial institution serving as depositary agent under the SACA, which on the Closing Date is U.S. Bank National Association.

"Dollar" or the sign "$" means United States dollars.

"Excluded Liabilities and Obligations" has the meaning set forth in Section 2.3.

"Excluded Payments" means all amounts due or paid to AcelRx or any of its Affiliates other than the Royalties, including all amounts due or paid to AcelRx or any of its Affiliates pursuant to Section 7.1, Section 7.2(a), Section 7.2(b) (other than the first four milestone payments thereunder), Section 7.2(c) or Section 7.4 of the License Agreement.

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

"Financing Statements" means the UCC-1 Financing Statements contemplated by Section 2.1(c), collectively.

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"First Commercial Sale" means "First Commercial Sale" as defined in Section 1.51 of the License Agreement.

"GAAP" has the meaning set forth for "US GAAP" in the definition of "Accounting Standards" in Section 1.2 of the License Agreement.

"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any country or jurisdiction.

"Grünenthal" means Grünenthal GmbH, a German company.

"Grünenthal Affiliate" means any "Affiliate", as defined in Section 1.3 of the License Agreement, of Grünenthal.

"Hercules Agreement" has the meaning set forth in the PSA.

"IFRS" has the meaning set forth for "IFRS" in the definition of "Accounting Standards" in Section 1.2 of the License Agreement.

"Independent Manager" has the meaning set forth in the Operating Agreement of the Seller, dated as of September 18, 2015.

"Initial Bill of Sale" means that certain bill of sale, dated as of the Closing Date, executed by AcelRx and the Seller, substantially in the form of Exhibit A to the PSA.

"Knowledge" means, [*].

"License Agreement" means that certain Collaboration and License Agreement, dated as of December 16, 2013, between AcelRx and the Licensee, as amended from time to time (including by the Licensee Consent and, for amendments entered into following the date hereof, amended in a manner consistent with the terms of the PSA and this SPSA).

"Licensee" means Grünenthal, in its capacity as licensee under the License Agreement.

"Licensee Consent" means that certain letter agreement, dated July 17, 2015, by and between the Licensor and the Licensee, regarding, among other things, the transfer of the Purchased Assets by the Licensor to the Seller and the further transfer of the Purchased Interest by the Seller to the Purchaser.

"Licensee Instruction" means the irrevocable notice and direction to the Licensee in the form set forth in Exhibit B to the PSA.

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"Licensed Product" means "Licensed Product" as defined in Section 1.78 of the License Agreement; provided that, if a New Arrangement is entered into by AcelRx in accordance with the terms of Section 5.6, "Licensed Product" shall be deemed to refer to the analogous term for "Licensed Product" (as defined in Section 1.78 of the License Agreement) as defined in the New License Agreement.

"Licensor" means AcelRx, in its capacity as licensor under the License Agreement.

"Licensor Retained Amounts" has the meaning set forth in the PSA.

"Lien" means any security interest, mortgage, pledge, hypothecation, assignment, deposit arrangement, encumbrance, lien (statutory or otherwise), charge against or interest in property or other priority or preferential arrangement of any kind or nature whatsoever, including any conditional sale or any sale with recourse. For the avoidance of doubt, any right of AcelRx described in clauses (b) and (c) of the definition of "Purchased Assets" in the PSA is not considered a Lien with respect to the Purchased Assets or the License Agreement, and any right of the Seller described in Sections 2.1(a)(ii) and (iii) is not considered a Lien with respect to the Purchased Interest.

"Loss" means any loss, liability, cost, expense (including reasonable costs and/or expenses of investigation and defense and reasonable attorneys' fees and expenses), charge, fine, penalty, obligation, judgment, award, Set-off (other than a Permitted Set-off) based on any obligation or amount owing by the Seller or any of its Affiliates that has the effect of reducing amounts required to be paid by the Licensee in respect of the Royalties, assessment, claim or cause of action.

"Manufacture and Supply Agreement" means the Manufacture and Supply Agreement, dated as of December 16, 2013, between AcelRx and Grünenthal, as amended from time to time.

"Manufacturing Information" means any and all information relating solely to the manufacture, supply or purchase of property under the Manufacture and Supply Agreement, and the respective rights and obligations of AcelRx or the Licensee in respect thereof.

"Manufacturing Matters" means matters relating solely to the manufacture, supply or purchase of Licensed Product or other property, as applicable, under the Manufacture and Supply Agreement.

"Material Adverse Effect" means (a) an adverse effect in any material respect on the legality, validity or enforceability of any of the Transaction Documents, the License Agreement, or the back-up security interest granted pursuant to Section 2.1(d), (b) an adverse effect in any material respect on the right or the ability of AcelRx or the Seller to perform any of their respective obligations under any of the Transaction Documents or the License Agreement, or to consummate the transactions hereunder or thereunder, (c) an adverse effect in any material respect on the respective rights or remedies of AcelRx, the Seller or the Purchaser under any of the Transaction Documents or under the License Agreement, (d) an adverse effect on the right of the Purchaser to receive the Royalties Interest and the timing, amount or duration of the Royalties Interest (other than de minimus effects), (e) an adverse effect on the Purchased Assets or Purchased Interest (other than de minimus effects), or (f) an adverse effect in any significant respect on any AcelRx Intellectual Property Rights.

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"Net Sales" means "Net Sales" as defined in Section 1.89 of the License Agreement.

"New Arrangement" has the meaning set forth in the PSA.

"New License Agreement" has the meaning set forth in the PSA.

"Party" shall mean the Seller or the Purchaser, as the context requires, and "Parties" shall mean, together, the Seller and the Purchaser.

"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any intellectual property rights that are Patents.

"Patents" means "Patents" as defined in Section 1.91 of the License Agreement.

"Payment Rights" means the right to receive an amount of Royalties equal to the Royalties Interest, subject to the Capped Payment Amount, and the right to receive interest payable or paid pursuant to the License Agreement on late payments of amounts constituting the Royalties Interest (with such amounts in respect of which interest is paid not exceeding the Capped Payment Amount).

"Permitted Liens" means (i) the Liens created in favor of the Purchaser under the Transaction Documents, (ii) the backup security interest in favor of the Purchaser (as defined in the PSA) under Section 2.1(d) of the PSA, (iii) the security interest in favor of the Purchaser in the Company Collection Account and the Company Distribution Account and the other Account Collateral (as defined in the SACA) pursuant to the SACA and (iv) subject to the subordination agreement set forth in Section 15 of the SACA or other subordination agreements to which it enters into with the Servicer, AcelRx, the Seller or the Purchaser, any Lien arising in favor of the Depositary Agent as collection bank with respect to the Payment Rights.

"Permitted Set-off" means any Set-off against royalties or other amounts payable to Licensor by Licensee under the License Agreement that is expressly permitted under Sections 7.3(b), 7.3(c) or 7.3(d) of the License Agreement.

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

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"Pre-Closing Confidential Information" means "Confidential Information" (as defined in the Confidentiality Agreement) provided by or to, as applicable, the Purchaser, the Seller, or, on behalf of the Seller, any of the Seller's Affiliates prior to the Closing Date in connection with the Purchaser's, the Seller's and AcelRx's consideration and negotiation of the transactions contemplated by this SPSA and the other Transaction Documents.

"PSA" means the Purchase and Sale Agreement, dated as of the date hereof, between the Seller and AcelRx.

"PSA Triggering Event" has the meaning set forth in Section 5.3(f).

"Purchase Price" has the meaning set forth in Section 2.2.

"Purchased Assets" has the meaning set forth in the PSA.

"Purchased Interest" has the meaning set forth in Section 2.1(a).

"Purchaser" has the meaning set forth in the preamble.

"Purchaser Account" has the meaning set forth in Section 5.4(c).

"Purchaser Indemnified Party" has the meaning set forth in Section 7.1.

"Purchaser Portion" means (a) with respect to (i) all Royalties other than the first four milestone payments under Section 7.2(b) of the License Agreement and (ii) all other related amounts included in the definition of "Royalties" with respect to the Royalties described in clause (i), seventy-five percent (75%) of a specified amount that is payable or has been paid, and (b) solely with respect to Royalties that consist of the first four milestone payments under Section 7.2(b) of the License Agreement and all other related amounts included in the definition of "Royalties" with respect to such Royalties, eighty percent (80%) of a specified amount that is payable or has been paid.

"Representatives" has the meaning set forth in Section 5.2(b).

"Royalties" means (a) all amounts due, owed, accrued, payable or paid to the Licensor under Section 7.2(b) (solely with respect to the first four milestone payments thereunder), Section 7.3 and the last sentence of Section 10.3(b) of the License Agreement during the Royalty Term, giving effect to all Permitted Set-offs, and including (i) all underpayments due, owed, accrued, payable or paid to the Licensor with respect to such amounts under Section 8.5 of the License Agreement and (ii) all amounts due, owed, accrued, payable or paid to the Licensor in lieu of the amounts described in this clause (a), including amounts due in respect of a New Arrangement, if any; (b) all "accounts" (as defined under the UCC) evidencing the rights to the payments and amounts described in this definition; and (c) all "proceeds" (as defined under the UCC) of any of the foregoing. [*] For the avoidance of doubt, Royalties shall (x) include all amounts due, owed, accrued, payable or paid to the Licensor or any of its Affiliates (including the Seller) by one or more licensees or sublicensees under any New Arrangement that are in lieu of the amounts described in clause (a) above and (y) exclude the amount of any and all Excluded Payments.

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"Royalties Commencement Date" means the date after the Closing Date of the First Commercial Sale in the first country in the Territory in which such First Commercial Sale occurs.

"Royalties Interest" means the Purchaser Portion of Royalties.

"Royalty Reduction" has the meaning set forth in the PSA.

"Royalty Reports" means the "Royalty Reports" as defined in Section 7.5 of the License Agreement.

"Royalty Term" means the period commencing on the Royalties Commencement Date, and ending on the last day of the last to expire "Royalty Term" as defined in Section 7.3(e) of the License Agreement.

"SACA" means the Security and Control Agreement, dated as of the Closing Date, among the Seller, the Purchaser, the Servicer and U.S. Bank National Association as initial collateral agent and initial depositary agent thereunder.

"SEC" means the U.S. Securities and Exchange Commission.

"Second Amendment" has the meaning set forth in the PSA.

"Seller" has the meaning set forth in the preamble.

"Seller Account" has the meaning set forth in Section 5.4(e).

"Seller Indemnified Party" has the meaning set forth in Section 7.2.

"Servicer" means the servicer under the Servicing Agreement.

"Servicer Report" has the meaning set forth in the PSA.

"Servicing Agreement" means that certain Servicing Agreement, dated September 18, 2015, among AcelRx, as the initial servicer, the Seller and the Purchaser.

"Set-off" means any set-off, off-set, charge, reduction or similar deduction; provided, however, that "Set-off" shall not include any Royalty Reduction.

"SPSA" has the meaning set forth in the preamble.

"Specified Confidential Information" means the reports issued by the Licensee pursuant to Section 7.5 of the License Agreement and the results of any audit conducted pursuant to Section 8.5 of the License Agreement.

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"Sublicensee" means any "Sublicensee" as defined in Section 1.108 of the License Agreement.

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, sales, use, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

"Tax Return" means any report, return, form (including elections, declarations, statements, amendments, claims for refund, schedules, information returns or attachments thereto) or other information supplied or required to be supplied to a Governmental Authority with respect to Taxes.

"Territory" means "Territory" as defined under Section 1.111 of the License Agreement, but including Australia only for so long as Australia remains part of the Territory pursuant to the License Agreement.

"Third Party" means any Person that is not a Party.

"Third Party Claim" means any claim, action, suit or proceeding by a Third Party, including any investigation by any Governmental Authority.

"Transaction Documents" means the PSA, the Initial Bill of Sale, the Licensee Instruction, this SPSA, the Bill of Sale, the Servicing Agreement and the SACA.

"Transfer Taxes" shall mean all excise, sales, use, value added, transfer (including real property transfer), withholding, capital gains, transfer taxes, stamp, documentary, filing, recordation, registration and other similar taxes, together with any interest, additions, fines, costs or penalties thereon and any interest in respect of any additions, fines, costs or penalties.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided, that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(d) is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of Delaware, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of this SPSA and any financing statement relating to such perfection or effect of perfection or non-perfection.

"U.S." or "United States" means the United States of America, its 50 states, each territory thereof and the District of Columbia.

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"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

Section 1.2 Rules of Construction. (a) Unless the context otherwise requires, in this SPSA:

(i) a term has the meaning assigned to it and an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP or IFRS, as the case may be, as applicable to the Seller or the Licensee;

(ii) unless otherwise defined, all terms that are defined in the UCC shall have the meanings stated in the UCC;

(iii) words of the masculine, feminine or neuter gender shall mean and include the correlative words of other genders;

(iv) the terms "include," "including" and similar terms shall be construed as if followed by the phrase "without limitation";

(v) unless otherwise specified, references to a contract, document or agreement include references to such contract, document or agreement as from time to time amended, restated, reformed, supplemented or otherwise modified in accordance with its terms (subject to any restrictions on such amendments, restatements, reformations, supplements or modifications set forth herein or in any of the other Transaction Documents), and include any annexes, exhibits and schedules hereto or thereto, as the case may be; provided, however, that, unless otherwise specified, terms defined in Section 1.1 by reference to any other contract or agreement shall be deemed to refer to such contract or agreement as in effect on the date of this SPSA;

(vi) any reference to any Person shall be construed to include such Person's successors and permitted assigns (subject to any restrictions on assignment, transfer or delegation set forth herein or in any of the other Transaction Documents) and any reference to a Person in a particular capacity excludes such Person in other capacities;

(vii) references to any Applicable Law shall include such Applicable Law as from time to time in effect, including any amendment, modification, codification, replacement, or reenactment thereof or any substitution therefor;

(viii) the word "will" shall be construed to have the same meaning and effect as the word "shall";

(ix) the words "hereof," "herein," "hereunder" and similar terms shall refer to this SPSA as a whole and not to any particular provision hereof, and Article, Section and Exhibit references herein are references to Articles and Sections of, and Exhibits to, this SPSA unless otherwise specified;

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(x) the definitions of terms shall apply equally to the singular and plural forms of the terms defined;

(xi) in the computation of a period of time from a specified date to a later specified date, the word "from" means "from and including" and each of the words "to" and "until" means "to but excluding";

(xii) where any payment is to be made, any funds are to be applied or any calculation is to be made under this SPSA on a day that is not a Business Day, unless this SPSA otherwise provides, such payment shall be made, such funds shall be applied and such calculation shall be made on the succeeding Business Day, and payments shall be adjusted accordingly; and

(xiii) any reference to a term that is defined by reference to its meaning in the License Agreement shall refer to such term's meaning in such License Agreement as in existence on the date hereof (and not to any new, substituted or amended version thereof effected after the date hereof) and shall incorporate defined terms referenced in such meaning in the License Agreement.

(b) The provisions of this SPSA shall be construed according to their fair meaning and neither for nor against either Party irrespective of which Party caused such provisions to be drafted. Each Party acknowledges that it has been represented by an attorney in connection with the preparation and execution of this SPSA and the other Transaction Documents.

ARTICLE II

PURCHASE AND SALE OF THE PURCHASED INTEREST

Section 2.1 Purchase and Sale. (a) Subject to the terms and conditions of this SPSA, on the Closing Date, the Seller hereby sells, assigns, transfers, conveys, contributes and grants to the Purchaser, and the Purchaser hereby purchases, acquires and accepts from the Seller, all of the Seller's right, title and interest in and to the Purchased Interest (as hereinafter defined), free and clear of any and all Liens, other than Permitted Liens. As used herein, the "Purchased Interest" consists of the following rights:

(i) the right to receive one hundred percent (100%) of the Royalties Interest, provided that the aggregate amount of the Royalties Interest acquired hereunder and to be received by the Purchaser shall not exceed One-Hundred Ninety-Five Million Dollars ($195,000,000) (the "Capped Payment Amount"), with the amount of payments received and that count toward the Capped Payment Amount equaling the sum of (A) the aggregate amount collected or received by the Purchaser (and any direct or indirect transferee of the Purchaser to whom any interest in the Purchased Interest is transferred) in respect of the Payment Rights or as a result of any payments made by the Seller pursuant to Section 5.4(b) or by AcelRx pursuant to Section 5.4(b) of the PSA, *plus* (B) the aggregate amount collected or received by the Purchaser (and any direct or indirect transferee of the Purchaser to whom any interest in the Purchased Interest is transferred) pursuant to the exercise of its rights under Section 7.1 or under Section 2.1(a)(vi) (without duplication of any amounts received pursuant to clause (A)), and the Parties acknowledge and agree that any amounts deducted or withheld pursuant to clauses *first* through *sixth* of the Servicing Agreement and not otherwise paid to the Purchaser shall not be treated as being received by the Purchaser (and, for the avoidance of doubt, shall not be counted toward the Capped Payment Amount);

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(ii) the right to receive reports issued by the Licensee pursuant to Section 7.5 of the License Agreement and included as part of the Purchased Assets (but not to the exclusion of the Seller), either directly from the Licensee, from the Seller or from the Servicer;

(iii) the right to receive the results of any audit conducted pursuant to Section 8.5 of the License Agreement and included as part of the Purchased Assets (but not to the exclusion of the Seller), either directly from the auditor that conducts such audit, from the Seller or from the Servicer;

(iv) the right to receive one-hundred percent (100%) of the interest payable by the Licensee in respect of late payments of amounts constituting the Royalties Interest (such amounts in respect of which interest is paid shall not exceed the Capped Payment Amount), which amounts shall be reduced by (A) any amounts deducted or withheld in respect of Taxes on such amounts pursuant to Section 8.3(b) of the License Agreement, (B) any non-U.S. Taxes payable by or imposed upon the Seller or AcelRx in respect of such amounts, and (C) any withholding Taxes imposed on or in respect of payments made to the Purchaser hereunder, in each case to the extent such Taxes described in clauses (A)-(C) do not constitute Covered Taxes;

(v) the right to cause the Servicer to enforce the payment and performance by Licensee of the obligations set forth in the License Agreement corresponding to the rights described in subclauses (i) through (iv), in accordance with the License Agreement, the PSA, this SPSA and the Servicing Agreement; and

(vi) the Seller's rights to recover for Losses under Article VII of the PSA, subject to all the terms, conditions and limitations of the PSA (and without duplication of the Purchaser's rights under ARTICLE VII hereof);

but excluding, in all cases, any and all Licensor Retained Amounts from the right, title and interest in the Purchased Interest transferred hereunder.

For the sake of clarity, for purposes of determining whether amounts received in respect of the Royalties Interest exceed the Capped Payment Amount, any amounts deducted or withheld in respect of Taxes on such payments of the Royalties Interest pursuant to Section 8.3(b) of the License Agreement, any non-U.S. Taxes payable by or imposed upon the Seller or AcelRx in respect of such amount, and any withholding or other Taxes imposed on or in respect of payments to the Purchaser hereunder, shall be treated as received by the Purchaser.

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Upon receipt by the Purchaser of the Capped Payment Amount, or earlier expiration of the Royalty Term, except in all respects for such payments, amounts due or other rights that are to survive the expiration of the Royalty Term pursuant hereto (but subject to the Capped Payment Amount), the Purchaser will cease to receive (and will have no further entitlement to) payments from any Person in respect of the Payment Rights, and all amounts of Royalties, and interest on late payments thereof received thereafter in respect of the Purchased Assets (other than amounts accrued prior to such expiration and constituting accrued but unpaid amounts in respect of the Payment Rights, which shall be paid to the Purchaser) will be retained or disposed of by the Seller as it may determine.

(a) The Seller and the Purchaser expressly intend and agree that the sale, assignment, transfer, conveyance, grant and contribution of the Purchased Interest under this SPSA shall be, and is, a true, complete, absolute and irrevocable assignment and sale by the Seller to the Purchaser of the Purchased Interest that is absolute and irrevocable and that such assignment and sale shall provide the Purchaser with the full benefits of ownership of the Purchased Interest. Neither the Seller nor the Purchaser intends the transactions contemplated hereby to be, or for any purpose be characterized as, a loan from the Purchaser to the Seller or a pledge or assignment of a security interest as collateral for a loan. The Seller waives any right to contest or otherwise assert that this SPSA does not constitute a true, complete, absolute and irrevocable sale and assignment by the Seller to the Purchaser of the Purchased Interest under Applicable Law, which waiver shall be enforceable against the Seller in any Bankruptcy Event in respect of the Seller. The sale, assignment, transfer, conveyance, grant and contribution of the Purchased Interest shall be reflected on the Seller's financial statements and other records as a sale of assets to the Purchaser (except to the extent GAAP or the rules of the SEC require otherwise with respect to the Seller's consolidated financial statements).

(b) The Seller hereby authorizes the Purchaser to record and file, and consents to the Purchaser recording and filing, at the Purchaser's sole cost and expense, (i) a UCC-1 Financing Statement, in the form attached as Exhibit E-1, in the appropriate filing offices under the UCC (and continuation statements with respect to such financing statements when applicable), and amendments thereto, in such manner and in such jurisdictions as are necessary or appropriate to evidence or perfect the sale, assignment, transfer, conveyance, grant and contribution by the Seller to the Purchaser, and the purchase, acquisition and acceptance by the Purchaser from the Seller, of the Purchased Interest and (ii) a UCC-1 Financing Statement, in the form attached as Exhibit E-2, to perfect the security interest in the Purchased Interest granted by the Seller to the Purchaser pursuant to Section 2.1(d). Further, at any time and from time to time, the Purchaser shall be entitled to authenticate on behalf and in the name of the Seller, file and/or record any or all such financing statements, instruments and documents, and to take all such other actions, as the Purchaser may deem appropriate to perfect and to maintain perfected the security interest granted by the Seller to the Purchaser pursuant to Section 2.1(d).

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(c) Notwithstanding the express intent of the Seller and the Purchaser, to the extent that such sale, assignment, transfer, conveyance, grant and contribution does not effect a true, complete, absolute and irrevocable sale and assignment by the Seller to the Purchaser of the Purchased Interest as determined by competent judicial authority (a "Recharacterization Event"), the Seller hereby assigns, conveys, contributes, grants and pledges to the Purchaser, as security for the Seller's obligations created hereunder in the event a Recharacterization Event occurs, a first priority continuing security interest in and to all of the Seller's right, title and interest in, to and under the following, in each case, whether now owned or existing or hereafter acquired or arising, and wherever located: (i) the Purchased Interest and (ii) any and all additions and accessions to any of the foregoing, all improvements thereto, all substitutions and replacements therefor and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts), to secure the performance of all of the Seller's obligations under this SPSA. The Parties hereto agree that this SPSA shall constitute a security agreement. At the request of the Purchaser, from time to time after a Recharacterization Event, the Seller shall promptly and duly execute and deliver, or cause to be duly executed and delivered, to the Purchaser all financing statements (including, without limitation, any amendments and continuations) and other instruments and documents in form and substance satisfactory to the Purchaser as shall be necessary or desirable to fully perfect, when filed and/or recorded, and continue and preserve the security interest granted pursuant to this Section 2.1(d) (which, for purposes of clarity, shall not require the Seller to make any request to, or to take any action with respect to, Grünenthal) as well as the priority thereof.

Section 2.2 Payment of Purchase Price. In full consideration for the sale, assignment, transfer, conveyance, grant and contribution of the Purchased Interest on the Closing Date, and subject to the terms and conditions set forth herein, the Purchaser, on the Closing Date, shall pay (or cause to be paid) to the Seller, or the Seller's designee, at the Closing, the aggregate sum of Sixty-Five Million Dollars ($65,000,000), in immediately available funds by wire transfer to the Seller Account (the "Purchase Price"). The Seller will use the proceeds paid at the Closing by the Purchaser in consideration of the Purchase Price solely to pay the amounts due to AcelRx (or its designees, as provided for in Section 2.2 of the PSA) pursuant to Section 2.2 of the PSA on the Closing Date for the Purchased Assets.

Section 2.3 No Assumed Obligations. Notwithstanding any provision in this SPSA or any other writing to the contrary, the Purchaser is purchasing, acquiring and accepting only the Purchased Interest and is not assuming any liability or obligation of the Seller or any of the Seller's Affiliates of whatever nature, whether presently in existence or arising or asserted hereafter, including (a) any liability or obligation of the Seller or its Affiliates under the PSA, the License Agreement or the Manufacture and Supply Agreement and (b) any liability of the Seller or any direct or indirect owner of the Seller for Taxes, including any Taxes that may be imposed or assessed as a result of any transaction pursuant to the SPSA and/or the PSA, (i) other than the Purchaser's share of Transfer Taxes as provided in Section 5.8(b), and (ii) provided that any Taxes that reduce Royalties pursuant to the proviso in clause (c) of the definition of "Royalties" shall not be subject to indemnification by Seller pursuant to Section 7.1. All such liabilities and obligations shall be retained by, and remain liabilities and obligations of, the Seller or the Seller's Affiliates, as the case may be (the "Excluded Liabilities and Obligations").

Section 2.4 Excluded Assets. The Purchaser does not, by purchase, acquisition or acceptance of the right, title or interest granted hereunder or otherwise pursuant to any of the Transaction Documents, purchase, acquire or accept any assets or contract rights of the Seller or any of its Affiliates under the License Agreement (including the Excluded Payments and the Licensor Retained Amounts) or any other agreement or instrument related thereto, other than the Purchased Interest, or any other assets of the Seller or any of its Affiliates. The Purchaser acknowledges that AcelRx is retaining the Licensor Retained Amounts, and that AcelRx and its Affiliates (excluding the Seller) may enter into transactions pursuant to which they transfer all or a portion of such Licensor Retained Amounts to Third Parties.

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ARTICLE III

REPRESENTATIONS AND WARRANTIES OF THE SELLER

The Seller hereby represents and warrants to the Purchaser, as of the date hereof, as follows:

Section 3.1 Organization. The Seller is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Delaware and has all limited liability company power and authority, and all licenses, permits, franchises, authorizations, consents and approvals of all Governmental Authorities, required to own its property and conduct its business, as now conducted (including the execution and delivery of, and the performance under, the Transaction Documents to which it is a party), and to exercise its rights and to perform its obligations under the Transaction Documents to which it is a party. The Seller is duly licensed or qualified to transact business and is in good standing in every jurisdiction in which such license, qualification or good standing is required by Applicable Law (except where the failure to be so qualified or in good standing would not reasonably be expected to result in a Material Adverse Effect). The Seller has no subsidiaries.

Section 3.2 No Conflicts. (a) The execution and delivery by the Seller of any of the Transaction Documents to which it is a party, the performance by the Seller of its obligations contemplated hereunder or thereunder or the consummation by the Seller of the transactions contemplated hereby or thereby do not and will not (i) contravene, conflict with, violate or result in a breach of any term or provision of any of the organizational documents of the Seller, (ii) contravene, conflict with, violate or result in a breach of, or give any Governmental Authority the right to exercise any remedy or obtain any relief under, any Applicable Law or any judgment, order, writ, decree, permit or license of any Governmental Authority to which the Seller or any of its assets or properties may be subject or bound, (iii) contravene, conflict with, result in a breach or violation of, constitute a default (with or without notice or lapse of time, or both) under, require prepayment under, or give any Person the right to exercise any remedy or obtain any additional rights under, or accelerate the maturity or performance of, or payment under, or cancel or terminate (including any additional right of termination, cancellation or acceleration), except as would not reasonably be expected to result in a Material Adverse Effect, any contract, agreement, indenture, lease, license, deed, commitment, obligation or instrument to which the Seller is a party or by which the Seller or any of its assets or properties is bound or committed (taking into account the release of the Liens relating to the Hercules Agreement that the Seller represents and warrants shall occur concurrently with the Closing), or (iv) except for Permitted Liens, result in or require the creation or imposition of any Lien on the Purchased Assets or the Purchased Interest.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(b) Except for Permitted Liens, the Seller has not granted, nor does there exist, including, based on any action taken or failed to be taken by the Seller, any Lien on or relating to the Transaction Documents, the Purchased Assets (other than Liens under the Hercules Agreement that the Seller represents and warrants will be released concurrently with the Closing) or the Purchased Interest (other than Liens under the Hercules Agreement that the Seller represents and warrants will be released concurrently with the Closing).

Section 3.3 Authorization. The Seller has all necessary limited liability company power and authority to execute and deliver the Transaction Documents to which it is a party, to perform its obligations hereunder and thereunder and to consummate the transactions contemplated hereby and thereby. The execution and delivery of each of the Transaction Documents to which it is a party by the Seller and the performance by the Seller of its obligations hereunder and thereunder have been duly authorized by all necessary limited liability company action on the part of the Seller. Each of the Transaction Documents to which it is a party has been duly executed and delivered by an authorized officer of the Seller. Each of the Transaction Documents to which it is a party constitutes the legal, valid and binding obligation of the Seller, enforceable against the Seller in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally and general equitable principles.

Section 3.4 Ownership.(a) The Seller is the exclusive (other than to the extent set forth in Sections 2.1(a)(ii) and (iii)) owner of the entire right, title (legal and equitable) and interest in, to and under the Purchased Assets and has good and valid title thereto, free and clear of all Liens (other than Liens under the Hercules Agreement that the Seller represents and warrants will be released concurrently with the Closing, and Permitted Liens). The Purchased Interest sold, assigned, transferred, granted, conveyed and contributed to the Purchaser on the Closing Date has not been pledged, sold, assigned, transferred, conveyed, granted or contributed by the Seller to any other Person (other than to the extent set forth in clauses (ii) and (iii) of the definition of "Purchased Interest," and other than Liens under the Hercules Agreement that the Seller represents and warrants will be released concurrently with the Closing, and Permitted Liens). The Seller has full right to sell, assign, transfer, convey, grant and contribute the Purchased Interest to the Purchaser. Upon the sale, assignment, transfer, conveyance, grant and contribution by the Seller of the Purchased Interest to the Purchaser under this SPSA, the Purchaser shall acquire good, valid and marketable title to the Purchased Interest free and clear of all Liens, other than Permitted Liens, and shall be the exclusive owner of the Purchased Interest (other than to the extent set forth in clauses (ii) and (iii) of the definition of "Purchased Interest").

Section 3.5 Governmental and Third Party Authorizations. The execution and delivery by the Seller of the Transaction Documents to which it is a party, the performance by the Seller of its obligations hereunder and thereunder and the consummation by the Seller of the transactions contemplated hereby and thereby do not require any consent, approval, license, order, authorization or declaration from, notice to, action or registration by, or filing with, any Governmental Authority or any other Person, except for (a) the filing of UCC financing statements, (b) the notice to the Licensee contained in the Licensee Instruction, (c) the Licensee Consent, (d) the Second Amendment and (e) applicable filings with the SEC.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Section 3.6 No Litigation. There is no action, suit, arbitration proceeding, claim, demand, citation, summons, subpoena, inquiry, investigation or other proceeding (whether civil, criminal, administrative, regulatory, investigative or informal) pending or, to the Knowledge of the Seller, threatened by or against the Seller or any of its Affiliates, or, to the Knowledge of the Seller, pending or threatened by or against the Licensee, any Licensee Affiliate or any Sublicensee, relating to or affecting the Purchased Assets (including under the License Agreement) or the Purchased Interest, at law or in equity, in each case, that would reasonably be expected to result in a Material Adverse Effect.

Section 3.7 Solvency. Immediately after giving effect to the consummation of the transactions contemplated by the Transaction Documents and the application of the proceeds therefrom, (a) the Seller will be able to realize upon its assets and pay its debts, liabilities and other obligations, including contingent obligations, as they mature, (b) the Seller will not have unreasonably small capital with which to engage in its business, as now conducted and as proposed to be conducted following the Closing Date, (c) the Seller does not have any present plans or intentions to incur debts or other obligations or liabilities beyond its ability to pay such debts or other obligations or liabilities, including contingent liabilities, as they become absolute and matured, (d) the Seller will not have existing debts that cannot be paid from the present saleable value of its property, and (e) the Seller will not be or have become insolvent within the meaning of any applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws generally affecting creditors' rights or by equitable principles and will not have become subject to any Bankruptcy Event. For purposes of this Section 3.7, the amount of all contingent obligations at any time shall be computed as the amount that, in light of all facts and circumstances existing at such time, can reasonably be expected to become an actual or matured liability.

Section 3.8 Tax Matters. To the extent a breach or inaccuracy of any of the following could result in a liability of the Purchaser to any Person, whether as a result of Applicable Law, contract, or otherwise:

(a) The Seller has timely filed (or caused to be timely filed) all material Tax Returns required by Applicable Law to have been filed by it and has paid or remitted all Taxes required to be paid by it when the same have become due. All Tax Returns filed by the Seller (or on its behalf) have been true, correct and complete. There is no outstanding or threatened action, claim or other examination or proceeding with respect to Taxes of the Seller or its assets (including with respect to the Royalties). There are no Taxes of the Seller that form or could form the basis for a Lien on any of its assets (including the Purchased Assets), except any such Taxes that are not yet due or delinquent or are being diligently contested in good faith by appropriate proceedings and for which adequate reserves in accordance with GAAP have been set aside on its books.

(b) Seller is not a party to any Tax sharing, Tax indemnity or Tax allocation agreement or any other express or implied agreement to indemnify any other Person for Taxes that would, in any manner, bind, obligate or restrict Purchaser.

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Section 3.9 No Brokers' Fees. The Seller has not taken any action that would entitle any person or entity other than Credit Suisse Securities (USA) LLC, whose fees will be paid by AcelRx, to any commission or broker's fee in connection with the transactions contemplated by this SPSA and any other Transaction Document.

Section 3.10 Compliance with Laws. The Seller (a) has not violated, is not in violation of, has not been given notice of any violation of, and, to the Knowledge of the Seller, is not under investigation with respect to nor has been threatened to be charged with, any violation of, any Applicable Law or any judgment, order, writ, decree, injunction, stipulation, consent order, permit or license granted, issued or entered by any Governmental Authority or (b) is not subject to any judgment, order, writ, decree, injunction, stipulation, consent order, permit or license granted, issued or entered by any Governmental Authority, in each case with respect to clause (a) and (b) above, that would reasonably be expected to result in a Material Adverse Effect. The Seller is in compliance with the requirements of all Applicable Laws, a breach of any of which would reasonably be expected to result in a Material Adverse Effect.

Section 3.11 UCC Matters. The Seller's exact legal name is "ARPI LLC." The Seller's principal place of business is located in the State of Delaware. The Seller's jurisdiction of organization is the State of Delaware. The Seller has not been the subject of any merger or other corporate or other reorganization in which its identity or status was materially changed, except in each case where it was the surviving or resulting Person.

Section 3.12 Margin Stock; Investment Company.(a) (a) The Seller is not engaged in the business of extending credit for the purpose of buying or carrying margin stock, and no portion of the Purchase Price shall be used by the Seller for a purpose that violates Regulation T, U or X promulgated by the Board of Governors of the Federal Reserve System from time to time

(b) The Seller is not an "investment company" or a company "controlled" by an "investment company," within the meaning of the Investment Company Act of 1940, as amended, including the rules and regulations thereunder (the "Investment Company Act").

Section 3.13 Related Agreements. Other than the Transaction Documents, the Licensee Consent, the License Agreement, the Confidentiality Agreement, the Manufacture and Supply Agreement, the agreements identified on Exhibit 1.83 to the License Agreement, and, taking into account the release of the Liens relating to the Hercules Agreement that the Seller represents and warrants shall occur concurrently with the Closing, and solely with respect to clause (ii) below, the Hercules Agreement, there is no contract, agreement or other arrangement to which the Seller is a party or by which its assets or properties is bound or committed (i) that creates a Lien on, affects or otherwise relates to the Purchased Assets or the License Agreement, or (ii) for which breach, nonperformance, termination, cancellation or failure to renew would reasonably be expected to result in a Material Adverse Effect.

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Section 3.14 Operations of Seller. The Seller was formed on September 1, 2015 for the sole purpose of acquiring the Purchased Assets as contemplated by the PSA, selling the Purchased Interest to the Purchaser as contemplated hereby and otherwise entering into and performing its obligations under the Transaction Documents. The Seller has not been and is not engaged in any business unrelated to effecting the transactions contemplated by the Transaction Documents (including Section 5.10 of this SPSA). The sole assets of the Seller that it has owned or will own consist exclusively of the Purchased Assets and any rights arising under the Transaction Documents and any ancillary agreements entered into in order to perform its obligations under the Transaction Documents. Since the date of the Seller's formation, the Seller has not incurred any obligations or liabilities or engaged in any business activities of any type or kind whatsoever or entered into any agreements or arrangements with any Person, except as required to execute and deliver the Transaction Documents and to consummate the transactions contemplated thereby. The Seller has no obligations or liabilities, except those incurred in connection with, and pursuant to the Transaction Documents and the transactions contemplated thereby and any ancillary agreements entered into in order to perform its obligations under the Transaction Documents.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES OF THE PURCHASER

The Purchaser hereby represents and warrants to the Seller, as of the date hereof, as follows:

Section 4.1 Organization. The Purchaser is a corporation duly organized, validly existing and in good standing under the laws of Delaware.

Section 4.2 No Conflicts. The execution and delivery by the Purchaser of any of the Transaction Documents to which the Purchaser is party, the performance by the Purchaser of its obligations hereunder or thereunder or the consummation by the Purchaser of the transactions contemplated hereby or thereby will not (i) contravene, conflict with or violate any term or provision of any of the organizational documents of the Purchaser, (ii) contravene, conflict with or violate, or give any Governmental Authority or other Person the right to exercise any remedy or obtain any relief under, in any material respect, any Applicable Law or any judgment, order, writ, decree, permit or license of any Governmental Authority to which the Purchaser or any of its assets or properties may be subject or bound or (iii) except as would not reasonably be expected to prevent or materially delay the consummation of the Closing, result in a breach or violation of, constitute a default (with or without notice or lapse of time, or both) under, or give any Person any right to exercise any remedy, or accelerate the maturity or performance of, in any material respect, any contract, agreement, indenture, lease, license, deed, commitment, obligation or instrument to which the Purchaser is a party or by which the Purchaser or any of its assets or properties is bound or committed.

Section 4.3 Authorization. The Purchaser has all necessary corporate power and authority to execute and deliver the Transaction Documents to which the Purchaser is a party, to perform its obligations hereunder and thereunder and to consummate the transactions contemplated hereby and thereby. The execution and delivery of each of the Transaction Documents to which the Purchaser is party and the performance by the Purchaser of its obligations hereunder and thereunder have been duly authorized by the Purchaser. Each of the Transaction Documents to which the Purchaser is party has been duly executed and delivered by the Purchaser. Each of the Transaction Documents to which the Purchaser is party constitutes the legal, valid and binding obligation of the Purchaser, enforceable against the Purchaser in accordance with its respective terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally, and general equitable principles.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Section 4.4 Governmental and Third Party Authorizations. The execution and delivery by the Purchaser of the Transaction Documents to which the Purchaser is party, the performance by the Purchaser of its obligations hereunder and thereunder and the consummation of the transactions contemplated hereby and thereby do not require any consent, approval, license, order, authorization or declaration from, notice to, action or registration by, or filing with, any Governmental Authority or any other Person, except for the filing of UCC financing statements, the notice to the Licensee contained in the Licensee Instruction, such filings as shall have been made prior to the date hereof and such filings required to be made after the date hereof under applicable federal and state securities laws, such as applicable state blue sky filings.

Section 4.5 No Litigation. There is no (a) action, suit, arbitration proceeding, claim, demand, citation, summons, subpoena, investigation or other proceeding (whether civil, criminal, administrative, regulatory, investigative or informal) pending or, to the knowledge of the Purchaser, threatened by or against the Purchaser, at law or in equity, or (b) inquiry or investigation (whether civil, criminal, administrative, regulatory, investigative or informal) by or before a Governmental Authority pending or, to the knowledge of the Purchaser, threatened against the Purchaser, that, in any case challenges or seeks to prevent or delay the consummation of any of the transactions contemplated by any of the Transaction Documents.

Section 4.6 Seller Retained Rights.(a) The Purchaser acknowledges that AcelRx and its Affiliates are retaining material rights with respect to the Purchased Assets and in respect of the License Agreement (including, without limitation, the Licensor Retained Amounts) and that AcelRx and its Affiliates may continue to have in the future, contractual and other relationships with the Licensee and its Affiliates, under the License Agreement and other agreements, and may also have and enter into future contractual and other relationships with Persons other than the Licensee and its Affiliates with respect to such retained rights, subject in all respect to the terms of the Transaction Documents. AcelRx and its Affiliates (excluding the Seller) shall not be prevented by any conflict of interest arising in connection with such retained rights or other relationships or agreements from exercising their respective rights under the Transaction Documents or the License Agreement (subject in all respect to the terms of the Transaction Documents), and the Purchaser acknowledges and agrees that AcelRx and its Affiliates hereby expressly disclaim any fiduciary duty towards the Purchaser and/or its Affiliates under the Transaction Documents or any other agreement relating to the matters pertaining thereto.

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ARTICLE V

COVENANTS

The Parties covenant and agree as follows:

Section 5.1 Books and Records; Notices. (a) The Seller shall keep and maintain, or cause to be kept and maintained, at all times, full and accurate books and records adequate to reflect accurately all Royalties and related financial information received.

(a) Promptly (but in no event more than five (5) Business Days) after receipt by the Seller thereof, the Seller (or the Servicer on its behalf) shall provide to the Purchaser copies of any written correspondence or other materials received from the Licensor pursuant to Section 5.1 of the PSA and copies or summaries of any other correspondence or other materials provided to the Seller by AcelRx or the Servicer under the PSA or the Servicing Agreement if not otherwise furnished contemporaneously to the Purchaser (including, without limitation, any information provided to the Seller pursuant to or in connection with compliance by AcelRx under Article V of the PSA).

(b) The Seller shall not willfully take any action to become subject to a Bankruptcy Event (including supporting any other Person's efforts to initiate or otherwise precipitate a Bankruptcy Event) and the Seller shall provide the Purchaser with written notice as promptly as practicable (and in any event within five (5) Business Days) after obtaining Knowledge of the occurrence of any Bankruptcy Event in respect of the Seller.

(c) The Seller shall notify the Purchaser in writing not less than thirty (30) days prior to any change in, or amendment or alteration of, the Seller's (i) legal name, (ii) form or type of organizational structure or (iii) jurisdiction of organization; provided, that, if any change in the Seller's name, identity, legal entity type or jurisdiction of organization would make any financing or continuation statement or notice of lien filed in connection with this SPSA seriously misleading within the meaning of applicable provisions of the UCC, the Seller hereby authorizes the Purchaser to file such amendments as may be required to preserve and protect the Purchaser's title and interest in and to the Purchased Interest and proceeds thereof and the collateral, if any, related thereto; it is understood that, during the term of this SPSA, each of AcelRx and the Seller shall maintain their jurisdictions of organization in the United States.

(d) The Seller shall provide the Purchaser with written notice as promptly as practicable (and in any event within five (5) Business Days) after obtaining Actual Knowledge of the occurrence of any breach or default by the Seller or AcelRx of any covenant, agreement or other obligation of the Seller or AcelRx (including in its role as Servicer), under this SPSA or any other Transaction Documents.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Section 5.2 Confidentiality; Public Announcement. (a) Except as expressly authorized in this SPSA or except with the prior written consent of Seller, the Purchaser hereby agrees that (i) it will use the Confidential Information solely for the purpose of the transactions contemplated by this SPSA and the other Transaction Documents and as necessary in exercising its rights and remedies and performing its obligations hereunder and thereunder; (ii) it will keep confidential the Confidential Information; (iii) it will not furnish or disclose to any Person any Confidential Information; and (iv) it shall take the same commercially reasonable steps to protect the Confidential Information as it takes to protect its own proprietary and confidential information. Notwithstanding anything to the contrary set forth in this SPSA, the Parties acknowledge and agree that Confidential Information shall not include any information to the extent it can be established by competent written records (A) is, at the time of disclosure, or thereafter becomes, a part of the public domain or publicly known or available, other than through any act or omission of the Purchaser in breach of its obligations under this Section 5.2, (B) was known to the Purchaser, other than under an obligation of confidentiality, at the time of disclosure to the Purchaser, (C) is, at the time of disclosure, or thereafter becomes, known to the Purchaser from a source other than the Seller or any of the Seller's Affiliates that had a lawful right to disclose such information to others and who, to the best knowledge of the Purchaser, did not directly or indirectly receive such information from the Seller or any of the Seller's Affiliates under an obligation of confidentiality, or (D) was independently developed by the Purchaser without use or reference to any Confidential Information or proprietary information or materials of the Seller or any of the Seller's Affiliates.

(b) Notwithstanding anything to the contrary set forth in this SPSA, the Purchaser may, without the consent of Seller, (i) furnish or disclose the Confidential Information to the Purchaser's Representatives who have been informed of the confidential nature of such information and who are subject to confidentiality obligations at least as stringent as this Section 5.2 or (ii) furnish or disclose the Specified Confidential Information to any potential or actual purchaser, transferee or assignee (and their respective directors, officers, employees, agents, attorneys, accountants, and other advisors and representatives (collectively, the "Representatives")) of all or any portion of the Purchased Interest to whom the Purchaser is entitled to sell, transfer or assign the Purchased Interest (or portion thereof) under Section 9.4 of this SPSA, in each case in connection with such sale, transfer or assignment, provided that such potential or actual purchaser, transferee or assignee (and their respective Representatives) shall be informed of the confidential nature of such information and such potential or actual purchaser, transferee or assignee shall have agreed in writing to be bound by confidentiality provisions at least as stringent as this Section 5.2. Each Party hereby acknowledges that the United States federal and state securities laws prohibit any Person that has material, non-public information about a company from purchasing or selling securities of such a company or from communicating such information to any other Person under circumstances in which it is reasonably foreseeable that such Person is likely to purchase or sell such securities.

(c) In the event that the Purchaser, its Affiliates or their respective Representatives are required, in the opinion of its counsel, by Applicable Law or legal or judicial process (including by deposition, interrogatory, request for documents, subpoena, civil investigative demand or similar process) to furnish or disclose any portion of the Confidential Information, the Purchaser shall, except where impracticable, provide the Seller, as promptly as practicable, with written notice of the existence of, and terms and circumstances relating to, such requirement, and the Purchaser shall, at the sole cost and expense of the Seller, use efforts to secure confidential treatment of such Confidential Information at least as diligent as the Purchaser would use to perfect its own confidential information, but in no event less than reasonable efforts; provided that any Confidential Information so disclosed shall still be subject to the restrictions on use set forth in this Section 5.2 and, in any event, the Parties agree to take all reasonable action to avoid disclosure of Confidential Information in these circumstances; provided, further, that, for the avoidance of doubt, this Section 5.2(c) shall not apply to any disclosures or furnishings of Confidential Information (or any portion thereof) related to or arising from the disclosure requirements of the SEC, the NASDAQ stock market or any other stock exchange on which securities issued by a Party or its Affiliates are traded and such disclosures or furnishings shall be made in accordance with the second sentence of Section 5.2(e) (except with respect to the filing of this SPSA). Any disclosure of Confidential Information by the Purchaser in compliance with the provisions of this Section 5.2(c) shall not be a breach of the Purchaser's obligations under Section 5.2(a).

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(d) As soon as reasonably practicable following the Closing Date, the Parties shall issue a mutually agreed to press release substantially in the applicable form attached hereto as Exhibit D. Except as required by Applicable Law (including disclosure requirements of the SEC, the NASDAQ stock market or any other stock exchange on which securities issued by a Party or its Affiliates are traded), neither Party shall make any other public announcement concerning this SPSA or the subject matter hereof without the prior written consent of the other, which shall not be unreasonably withheld or delayed; provided that it shall not be unreasonable for the Seller to withhold consent with respect to any public announcement containing any of the Confidential Information. In the event of a required public announcement, to the extent practicable under the circumstances, the Party making such announcement shall provide the other Party with a copy of the proposed text of such announcement sufficiently in advance of the scheduled release to afford such other Party a reasonable opportunity to review and comment upon the proposed text.

(e) The Parties shall coordinate in advance with each other in connection with the filing of this SPSA (including redaction of certain provisions of this SPSA) with the SEC, the NASDAQ stock market or any other stock exchange or Governmental Authority on which securities issued by a Party or its Affiliate are traded, and each Party shall use reasonable efforts to seek confidential treatment for the terms of this SPSA proposed to be redacted, if any; provided that each Party shall ultimately retain control over what information to disclose to the SEC, the NASDAQ stock exchange or any other stock exchange or Governmental Authority, as the case may be, and provided further that the Parties shall use their reasonable efforts to file (or cause their respective Affiliates to file) redacted versions with any Governmental Authorities which are consistent with redacted versions previously filed with any other Governmental Authorities. Other than such obligation, neither Party (nor its Affiliates) shall be obligated to consult with or obtain approval from the other Party with respect to any filings to the SEC, the NASDAQ stock market or any other stock exchange or Governmental Authority. For clarity, once a public announcement or other disclosure is made by a Party or one of its Affiliates in accordance with Section 5.2(d) or Section 5.2(e), then no further consent or compliance with Section 5.2(d) or Section 5.2(e) shall be required for any substantially similar disclosure thereafter.

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(f) The Parties acknowledge and agree that the Confidentiality Agreement shall remain in full force and effect with respect to all Pre-Closing Confidential Information exchanged between the Parties and/or their Affiliates prior to Closing and that, from and after the Closing, this Section 5.2 shall control with respect to Confidential Information provided under this SPSA and the Parties' respective confidentiality-related rights and obligations with respect to such Confidential Information. The Parties also acknowledge and agree that the Purchaser shall not be permitted to furnish or disclose Pre-Closing Confidential Information to any potential or actual purchaser, transferee or assignee (and their respective Representatives) of all or any portion of the Purchased Interest to whom the Purchaser is otherwise entitled to sell, transfer or assign the Purchased Interest (or portion thereof) under Section 9.4 of this SPSA unless such potential or actual purchaser, transferee or assignee executes a confidentiality agreement with AcelRx containing provisions substantially similar to the Confidentiality Agreement and that is consistent, in AcelRx's reasonable discretion (not to be unreasonably withheld, conditioned or delayed), with AcelRx's confidentiality obligations under the License Agreement. Any disclosure of Confidential Information by the Purchaser in compliance with the provisions of this Section 5.2 shall not be a breach of the Purchaser's obligations under the Confidentiality Agreement.

(g) Notwithstanding anything to the contrary in this SPSA, the Parties (and each of their respective employees, representatives or other agents) may disclose to any and all Persons, without limitation of any kind, the U.S. federal, state and local income tax treatment of the transactions contemplated by this SPSA and all materials of any kind (including opinions or other tax analyses) relating to such U.S. federal, state, and local tax treatment and that may be relevant to understanding such U.S. federal, state, and local tax treatment.

Section 5.3 Further Assurances. (a) Subject to the terms and conditions of this SPSA, each Party shall execute and deliver such other documents, certificates, instruments, agreements and other writings, take such other actions and perform such additional acts under Applicable Law as may be reasonably requested by the other Party to consummate and implement expeditiously the transactions contemplated by, and to carry out the purposes and intent of the provisions of, this SPSA and the other Transaction Documents, including to (i) perfect the sale, assignment, transfer, conveyance, grant and contribution of the Purchased Interest to the Purchaser pursuant to this SPSA, (ii) perfect, protect, more fully evidence, vest and maintain in the Purchaser good, valid and marketable rights and interests in and to the Purchased Interest free and clear of all Liens (other than Permitted Liens), (iii) create, evidence and perfect the Purchaser's back-up security interest granted pursuant to Section 2.1(d) and (iv) enable the Purchaser to exercise or enforce any of the Purchaser's rights under any Transaction Document to which the Purchaser is party. Without limiting the foregoing, the Seller agrees to cooperate as reasonably requested by the Purchaser in connection with the exercise by the Purchaser of its rights pursuant to Sections 2.1(a)(v) and (vi), subject to the terms, conditions and limitations of the PSA, the Servicing Agreement and this SPSA and reimbursement of the expenses of the Seller, in accordance with the PSA, the Servicing Agreement and this SPSA, in connection therewith to the extent not reimbursed by AcelRx.

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(a) The Seller and the Purchaser shall cooperate and provide assistance as reasonably requested by the other Party, at the expense of such other Party (except as otherwise set forth herein), in connection with any litigation, arbitration, investigation or other proceeding (whether threatened, existing, initiated or contemplated prior to, on or after the Closing Date) to which the other Party, any of its Affiliates or controlling persons or any of their respective officers, directors, managers, agents, equityholders, employees or controlling persons is or may become a party or is or may become otherwise directly or indirectly affected or as to which any such Persons have a direct or indirect interest, in each case relating to any Transaction Document, the transactions contemplated hereby or thereby or the Purchased Interest, but in all cases excluding any litigation brought by the Seller (for itself or on behalf of any Seller Indemnified Party) against the Purchaser or brought by the Purchaser (for itself or on behalf of any Purchaser Indemnified Party) against the Seller.

(b) The Seller shall comply with all Applicable Laws with respect to the Transaction Documents and the Purchased Interest, except where compliance therewith (and only so long as such compliance) is being contested by the Seller in good faith by appropriate proceedings and except where any non-compliance would not reasonably be expected to result in a Material Adverse Effect.

(c) The Seller shall not enter into any contract, agreement or other legally binding arrangement (whether written or oral), or grant any right to any other Person, other than ministerial items in connection with the maintenance of the Seller's corporate existence and otherwise in compliance with Sections 5.9 and 5.10 of this SPSA and any ancillary agreements entered into in order to perform its obligations under the Transaction Documents.

(d) The Seller shall not, without the prior written consent of the Purchaser (which consent shall not be unreasonably withheld, delayed, or conditioned), consent to any amendment, modification, supplement, restatement, waiver, cancellation or termination, in whole or in part, of any provision of or right under (i) the License Agreement, other than any provision relating solely to Manufacturing Matters, where any such amendment, modification, supplement, restatement, waiver, cancellation or termination would reasonably be expected to result in a Material Adverse Effect or (ii) the PSA.

(e) The Seller shall consult with the Purchaser prior to taking any action to exercise any of its rights against AcelRx under the PSA and shall promptly after obtaining Actual Knowledge thereof provide notice to the Purchaser of any and all facts that would give rise to the Seller having the right to exercise any rights or remedies against AcelRx, and the Seller shall diligently enforce any of its remedies against AcelRx under the PSA. The Seller shall promptly (and in no event more than ten (10) Business Days after receiving the applicable written request from the Purchaser) exercise any of its rights against AcelRx under the PSA or enforce any of its remedies against AcelRx under the PSA following the Purchaser's request to do so. For purposes of this SPSA, a "PSA Triggering Event" means (i) any failure of the Seller to comply with either of the covenants set forth in the two immediately preceding sentences or (ii) any failure of the Seller to use commercially reasonable efforts in exercising and enforcing its rights and remedies when requested to do so in accordance with the immediately preceding sentence. The Parties acknowledge and agree that a PSA Triggering Event constitutes a material breach of this SPSA by the Seller.

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(f) The Seller shall not, directly or indirectly, permit the transfer (including by way of any derivative arrangement) of any of its Capital Securities to any Person that is not a "qualified purchaser" within the meaning of Section 2(a)(51) of the Investment Company Act including the rules and regulations thereunder and otherwise in accordance with the provisions of this SPSA (unless such transfer does not otherwise cause the Seller to become subject to the registration requirements of the Investment Company Act and prior to effecting such transfer the Seller provides an opinion of counsel addressed to the Purchaser and in a form satisfactory to the Purchaser to that effect).

Section 5.4 Payments on Account of the Purchased Assets.(a) (a) If, notwithstanding the terms of the Licensee Instruction, the Licensee, any Sublicensee or any other Person makes any future payment to the Seller or any of its Affiliates in respect of the Payment Rights (which, for purposes of clarity, shall not include any payments made to the Company Collection Account), then (i) the portion of such payment that represents the Payment Rights payable to the Purchaser shall be held by the Seller (or such Affiliate) in trust for the benefit of the Purchaser in a segregated account, (ii) the Seller (or such Affiliate) shall have no right, title or interest whatsoever in such portion of such payment and shall not create or suffer to exist any Lien thereon and (iii) the Seller (or such Affiliate) promptly, and in any event no later than two (2) Business Days following the receipt by the Seller (or such Affiliate) of such portion of such payment, shall remit by wire transfer of immediately available funds such portion of such payment to the Purchaser Account in the exact amount received with all necessary endorsements (if applicable).

(b) If the Licensee, any Sublicensee or any other Person takes any Set-off based on any obligation or amount owing by the Seller or any of its Affiliates that does not constitute a Permitted Set-off hereunder and has the effect of reducing amounts required to be paid by the Licensee in respect of the Royalties, then the Seller promptly, and, in any event no later than two (2) Business Days after the Seller acquires Knowledge of such Set-off, shall remit by wire transfer of immediately available funds an amount equal to 75% of such Set-off to the Company Collection Account (which amount, the Parties acknowledge and agree, shall not be considered Licensor Retained Amounts for any purpose). Any payments made by the Seller pursuant to this Section 5.4(b) shall reduce on a dollar-for-dollar basis any amounts that would otherwise be payable under Section 5.4(b) of the PSA by AcelRx for the same Set-off. The Parties acknowledge and agree that, to the extent the Seller has made any payments to the Company Collection Account for any Set-off based on the first sentence of this paragraph (b) and all or any portion of the amount so paid is subsequently paid by or on behalf of Licensee (including through recovery on any judgment or from insurance) to any of the Company Collection Account, the Seller, the Purchaser or AcelRx in payment of all or such portion of such previously Set-off amount, such amount so paid by or on behalf of Licensee (or received through such recovery or insurance) shall for all purposes be considered Licensor Retained Amounts.

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(c) The Seller shall promptly, and in any event no later than two (2) Business Days following the receipt by the Seller (or such Affiliate) of such amounts, make all payments required to be made by it to the Purchaser pursuant to this SPSA by wire transfer of immediately available funds, to the account set forth on Exhibit C (or to such other account as the Purchaser shall notify the Seller in writing from time to time) (the "Purchaser Account"). Any payments made by Seller to Purchaser under this SPSA shall be made free and clear of and without deduction or withholding for any Taxes, except as required by Applicable Law. If Seller is required by Applicable Law to deduct or withhold any Tax from any sums payable to Purchaser, then (i) the Seller shall make such deductions or withholdings and pay the full amount deducted to the relevant Governmental Authority in accordance with Applicable Law and provide the Purchaser with written evidence that such payment was made; (ii) such deducted or withheld amounts shall be treated as if paid by the Seller to Purchaser under this SPSA and the Seller shall not be required to pay additional amounts in respect of such deducted or withheld Taxes to the Purchaser other than solely with respect to any deductions or withholdings on account of Covered Taxes, and (iii) solely with respect to any deductions or withholdings on account of Covered Taxes, the sum payable by the Seller to the Purchaser shall be increased as necessary so that after making all required deductions and withholdings (including deductions and withholdings applicable to additional sums payable under this Section 5.4(c)) the Purchaser receives an amount equal to the sum it would have received had no such deductions or withholdings been made.

(d) If the Purchaser shall receive any payment in respect of Royalties, or interest on late payments thereof, in excess of the portion that the Purchaser is to receive under Section 2.1(a), or after the Purchaser has received the Capped Payment Amount and any interest on any late payments of Royalties Interest due to the Purchaser, or the Purchaser shall receive any payment in respect of the Excluded Payments or the Licensor Retained Amounts, then (i) such payment shall be held by the Purchaser in trust for the benefit of the Seller in a segregated account, (ii) the Purchaser shall have no right, title or interest whatsoever in such payment and shall not create or suffer to exist any Lien thereon and (iii) the Purchaser promptly, and in any event no later than three (3) Business Days following the receipt by the Purchaser of such payment, shall remit such payment to the Seller Account pursuant to Section 5.4(e) in the exact amount received as adjusted (if required) pursuant to Section 5.4(e) with all necessary endorsements.

(e) The Purchaser shall make all payments required to be made by it to the Seller pursuant to this SPSA by wire transfer of immediately available funds in United States dollars, to the account set forth on Exhibit D (or to such other account as the Seller shall notify the Purchaser in writing from time to time) (the "Seller Account"). Any payments made by Purchaser to Seller under this SPSA shall be made free and clear of and without deduction or withholding for any Taxes, except as required by Applicable Law. If Purchaser is required by Applicable Law to deduct or withhold any Tax from any sums payable to Seller, then (i) the Purchaser shall make such deductions or withholdings and pay the full amount deducted to the relevant Governmental Authority in accordance with Applicable Law and provide the Seller with written evidence that such payment was made, (ii) such deducted or withheld amounts shall be treated as if paid by the Purchaser to the Seller under this SPSA, and the Purchaser shall not be required to pay additional amounts in respect of such deducted or withheld Taxes to the Seller other than solely with respect to any deductions or withholdings on account of Covered Taxes (provided, that, for purposes of this Section 5.4(e), all references to AcelRx or the Seller in clauses (i) through (iii) of the definition of Covered Taxes shall instead be deemed to be references to the Purchaser), and (iii) solely with respect to any deductions or withholdings on account of Covered Taxes, the sum payable by the Purchaser to the Seller shall be increased as necessary so that after making all required deductions and withholdings (including deductions and withholdings applicable to additional sums payable under this Section 5.4(e)) the Seller receives an amount equal to the sum it would have received had no such deductions or withholdings been made.

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Section 5.5 License Agreement and PSA. (a) The Seller (i) shall not, without the prior written consent of the Purchaser, which consent shall not be unreasonably withheld, delayed, or conditioned, forgive, release or compromise any Royalties payable by the Licensee under the License Agreement, (ii) shall not enter into any new contract, agreement or legally binding arrangement in respect of the Purchased Interest (other than in connection with the non-exclusive rights to certain of the Purchased Interest that it retains under Sections 2.1(a)(ii) and (iii)) without the prior written consent of the Purchaser, which consent shall not be unreasonably withheld, delayed, or conditioned, and (iii) shall not agree to do any of the foregoing. The Seller shall promptly (and in any case within five (5) Business Days) deliver to the Purchaser copies of all fully-executed or definitive writings related to the matters set forth in clauses (i), (ii) and (iii) of the immediately preceding sentence except to the extent such writing is related solely to Manufacturing Information or Manufacturing Matters and does not relate to any claims of the Licensee or any liability of the Seller under Article 9 of the Manufacture and Supply Agreement by way of its reference to Section 12.5 of the License Agreement.

(a) Except as otherwise expressly set forth in this ARTICLE V, the Seller shall not, without the prior written consent of the Purchaser, which consent shall not be unreasonably withheld, delayed, or conditioned, grant or withhold any consent, exercise or waive any right or option, fail to exercise any right or option or deliver to the Licensee or AcelRx, as applicable, any notice under, in respect of, affecting or relating to the Purchased Interest, the Purchased Assets, the AcelRx Patents, any Joint Patents, the Licensed Product, the License Agreement or the PSA (and excluding from such prohibition any Manufacturing Matters), except in each case where doing so would not reasonably be expected to result in a Material Adverse Effect. The Seller shall promptly (and in any case within five (5) Business Days) deliver to the Purchaser copies of all fully-executed or definitive writings related to the matters set forth in the immediately preceding sentence where the Purchaser's prior written consent is required.

(b) Promptly (and in any case within five (5) Business Days) after receiving notice from AcelRx alleging any breach of or default under the License Agreement by AcelRx or the Licensee or the PSA by AcelRx or the Seller or asserting the existence of any facts, circumstances or events that, alone or together with other facts, circumstances or events, would reasonably be expected (with or without the giving of notice or passage of time, or both) to give rise to a breach of or default under the License Agreement by AcelRx or the Licensee or the PSA by AcelRx or the Seller, or any other correspondence relating to the foregoing, the Seller shall, to the extent not prohibited by obligations of confidentiality contained in the License Agreement, provide a copy thereof or give written notice in reasonable detail thereof to the Purchaser. In the event that the Seller proposes to exercise any right under the PSA relating to an attempt to cure a default by AcelRx under the License Agreement or the PSA, the Seller shall provide prompt written notice thereof to the Purchaser and the Purchaser shall cooperate with the Seller in its effort to cure or cause AcelRx to cure any such breach or default. At its sole election, the Purchaser shall have the right to instruct the Seller to exercise any and all of the Seller's rights under the PSA relating to an attempt to cure a default by AcelRx under the License Agreement or the PSA and, upon delivery of such instruction by the Purchaser, the Seller shall use commercially reasonable efforts to exercise such rights as so instructed.

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(c) In the event any breach or default with respect to Payment Rights shall occur and the Seller has Knowledge thereof, the Seller shall promptly request (but in any event within five (5) Business Days) AcelRx, in its capacity as Servicer, to take commercially reasonable actions as are permissible under the License Agreement and Applicable Law to enforce the Payment Rights on behalf of the Purchaser in accordance with the requirements of the Servicing Agreement. In the event that the Seller fails to promptly (and in any event within five (5) Business Days) request AcelRx take such actions referenced in the preceding sentence, the Purchaser shall have the right to instruct AcelRx directly to, in its capacity as Servicer, take such actions for the purpose of enforcing such Payment Rights on behalf of the Purchaser in accordance with the requirements of the Servicing Agreement. Notwithstanding the foregoing, the Purchaser acknowledges and agrees that it shall have no right to enforce such Payment Rights directly on its own behalf, shall not bring any action, suit or proceeding for such enforcement against the Licensee, and shall rely exclusively on the Servicer under the Servicing Agreement for such enforcement in accordance with the terms of the Servicing Agreement. Without limiting the foregoing, neither the Seller nor the Purchaser shall have any claims or rights (i) to seek to cause or enforce performance under the License Agreement by the Licensee, including but not limited to any action, suit or proceeding alleging any failure by the Licensee to use the level of effort required by the License Agreement in the performance of the Licensee's obligations thereunder or (ii) to seek payment of any amounts due from or to any party under the License Agreement or the Manufacture and Supply Agreement, other than amounts constituting Payment Rights, and in that case only in accordance with the Servicing Agreement. It is acknowledged and agreed that the Licensee is entitled to certain Set-offs and to take Royalty Reductions against, under and in accordance with the License Agreement and the Manufacture and Supply Agreement, with respect to payments due to the Licensor and its direct and indirect assignees (including the Seller under the PSA and the Purchaser under this SPSA) as and to the same extent as the Licensee would be entitled to Set-off and take Royalty Reductions against such payments thereunder prior to giving effect to any assignment (including the transactions contemplated by the PSA and this SPSA), including but not limited to any Set-off or Royalty Reduction to which the Licensee may be entitled thereunder in the case of any failure or delay in the supply of Licensed Product by the Licensor or its Affiliates.

(d) The Purchaser hereby acknowledges and agrees to the terms of the Licensee Consent, for the benefit of the Seller and of the Licensor, as a third party beneficiary of this Section 5.5(e).

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Section 5.6 Termination of the License Agreement; New Arrangement . (a) Without limiting the provisions of Section 5.5 or any other rights or remedies the Purchaser may have under this SPSA, if the Licensee terminates or provides written notice of termination of the License Agreement or the License Agreement otherwise terminates (whether with respect to the Territory as a whole or with respect to any of France, Germany, Italy, Spain or the United Kingdom), in any case during the Royalty Term and before the Purchaser has received the Capped Payment Amount, and a New Arrangement is effected by the Seller or its Affiliates, then the Purchaser shall have the correlative rights under and in respect of the New Arrangement as it has hereunder with respect to the Purchased Interest (and, if such termination is only in part in respect of the Licensed Product in any of France, Germany, Italy, Spain or the United Kingdom (and not the Territory as a whole), with respect to such portion of the Purchased Interest as is derived from such portion of Net Sales in such country).

(a) Should the Purchaser identify any potential New Arrangement in the circumstances described above during the Royalty Term and before the Purchaser has received the Capped Payment Amount and while AcelRx remains obligated to use its commercially reasonable efforts to negotiate a New Arrangement under Section 5.6(a) of the PSA, the Seller agrees to consider and negotiate in good faith with respect to a new license agreement effecting such New Arrangement that satisfies the requirements for a New Arrangement provided for in the PSA promptly upon the written request of the Purchaser.

Section 5.7 Audits. (a) The Seller shall not, without the prior written consent of the Purchaser, and the Seller shall, upon the written request of the Purchaser, exercise the audit rights that are available under Section 8.5 of the License Agreement in accordance with Section 5.7 of the PSA. The Seller and the Purchaser agree that all of the expenses of any audit carried out at the request of the Purchaser pursuant to this Section 5.7(a) that would otherwise be borne by the Seller pursuant to the PSA shall instead be borne by the Purchaser and reimbursed to the Seller promptly on demand, together with the Seller's out-of-pocket costs and expenses incurred in connection with such audit. The Seller shall furnish to the Purchaser any audit report prepared in connection with such audit, provided that any information regarding Manufacturing Matters or Manufacturing Information that does not relate to any claims of the Licensee or any liability of AcelRx under Article 9 of the Manufacture and Supply Agreement by way of its reference to Section 12.5 of the License Agreement may be omitted from such report by the auditor or may be redacted by the Seller prior to providing such report to the Purchaser. Upon receipt of the Capped Payment Amount, the Purchaser shall cease to have rights under this Section 5.7 to cause the Seller to effect an audit, provided that the Purchaser shall be entitled to receive a copy of any audit report covering Payment Rights during the annual period in which the Capped Payment Amount is received.

(a) In the event that an audit conducted pursuant to Section 5.7(a) uncovers that the amounts actually paid to the Purchaser for any period in respect of the Purchased Interest was less than the amounts that should have been paid to the Purchaser for such period in respect of the Purchased Interest, the Seller shall promptly pay to the Purchaser the relevant portion of any amount it receives through the efforts of the Servicer to pursue collection of such underpayment (which may include interest on such amount and reimbursement, for the expenses of such audit received, from the Licensee), to the extent not paid directly to the Purchaser by the Licensee or the Servicer.

Section 5.8 Tax Matters.

(a) The transfer of the Purchased Interest pursuant to Section 2.1(a) of this SPSA shall be treated as a true sale of such Purchased Interest for Tax purposes.

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(b) The Seller and Purchaser shall each be liable for, and shall pay when due, [*] of any Transfer Taxes payable by reason of the transfer of the Purchased Assets under the PSA and the transfer of the Purchased Interest under this SPSA and shall file all necessary returns, reports or other filings with respect to all such Transfer Taxes.

(c) At Purchaser's reasonable expense, (i) Seller will use commercially reasonable efforts (including upon Purchaser's reasonable request) to file any Tax form or other documentation required to be filed by Seller or AcelRx under Applicable Law in effect as of the date hereof that would enable Purchaser to receive payments under this SPSA and the License Agreement free from, or at a reduced rate of, withholding Tax or other Taxes that would result in a reduction of Royalties, and (ii) Seller will use commercially reasonable efforts to file any other Tax form or other documentation required to be filed by Seller or AcelRx under Applicable Law that is not in existence as of the date hereof that would enable Purchaser to receive payments under this SPSA and the License Agreement free from, or at a reduced rate of, withholding Tax or other Taxes that would result in a reduction to the definition of "Royalties" unless, in Seller's reasonable judgment, the completion, execution or submission of such Tax form or documentation would materially prejudice the legal or commercial position of Seller.

(d) Seller will promptly notify Purchaser in the event that it has Actual Knowledge of any withholding or other Taxes that may constitute a reduction of Royalties pursuant to the proviso in clause (c) of the definition of "Royalties" and will consult with Purchaser in good faith in determining whether such Taxes are owed.

(e) Seller and Purchaser will each use commercially reasonable efforts, at the request and expense of the other Party, to cooperate with each other to minimize any Taxes imposed on or with respect to the Royalties or otherwise incurred with respect to the transactions undertaken pursuant to the Transaction Documents. Upon the reasonable request of a Party, the other Party will, at the requesting Party's expense, use commercially reasonable efforts to obtain a refund of any non-de minimus amount that the Parties agree (in their reasonable discretion) is attributable to a payment made pursuant to this Agreement and with respect to which a non-de minimus refundable payment is likely to be available from the applicable Tax authority to which a Tax payment was made.

Section 5.9 Separateness Obligations. The Seller shall maintain its existence separate and distinct from any other Person, including taking the following actions, as appropriate:

(a) maintaining in full effect its existence, rights and franchises as a Delaware limited liability company and obtaining and preserving its qualification to do business in each jurisdiction in which such qualification is or will be necessary to protect the validity and enforceability of this SPSA and each other instrument or agreement necessary or appropriate to properly administer this SPSA and permit and effectuate the transactions contemplated hereby and thereby;

(b) maintaining its own deposit accounts, separate from those of AcelRx, any of its directors or officers and their respective Affiliates;

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(c) conducting no material transactions between itself and any of its Affiliates, other than entering into and performing the Transaction Documents to which it is party and permitting AcelRx and the Servicer to pay expenses on its behalf and to otherwise take actions on its behalf in accordance with Section 5.9 of the PSA;

(d) allocating fairly and reasonably the cost of any shared overhead expenses, including office space, with AcelRx, any of its directors or officers or any of their respective Affiliates;

(e) conducting its affairs separately from those of AcelRx, any of its directors or officers or any of their respective Affiliates and maintaining accurate and separate books, records and accounts and financial statements, including in connection with the purchase of the Purchased Assets from AcelRx; it being agreed that performance under the Transaction Documents and payment by AcelRx and the Servicer of expenses on the Seller's behalf or AcelRx otherwise taking actions on the Seller's behalf in accordance with Section 5.9 of the PSA will not result in the Seller's contravening this clause (e);

(f) acting solely in its own name and not that of any other Person, including AcelRx, any of its directors or officers or any of their respective Affiliates, and at all times using its own stationery, invoices and checks separate from those of AcelRx, any of its directors or officers or any of their respective Affiliates;

(g) not holding itself out as having agreed to pay or guarantee, or as otherwise being liable for, the obligations of AcelRx, any of its directors or officers or any of their respective Affiliates;

(h) maintaining all of its assets in its own name and not commingling its assets with those of any other Person except as contemplated by the Transaction Documents;

(i) paying its own operating expenses and other liabilities out of its own funds; provided that AcelRx and the Servicer may pay expenses on behalf of the Seller and may otherwise take actions on the Seller's behalf in accordance with Section 5.9 of the PSA;

(j) paying all Taxes owed by it in the event it is individually obligated to pay such Taxes separate and apart from AcelRx; provided that AcelRx and the Servicer may pay Taxes on behalf of the Seller;

(k) observing all formalities required by the organizational documents of the Seller, including, without limitation, maintaining one Independent Manager;

(l) maintaining adequate capital for the normal obligations reasonably foreseeable in a business of the Seller's size and character and in light of its contemplated business operations and obligations;

(m) not acquiring obligations of AcelRx, any of its directors or officers or any of their respective Affiliates except as contemplated by the Transaction Documents;

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(n) holding itself out to the public as a legal entity separate and distinct from any other Person, including AcelRx or any Affiliate of AcelRx;

(o) correcting any known misunderstanding regarding its separate identity;

(p) not forming, acquiring or holding any subsidiaries or equity interests in any other Person; and

(q) not sharing any common logo with or identifying itself as a department or division of AcelRx, any of its directors or officers or any of their respective Affiliates.

Section 5.10 Seller Restrictive Covenants. The Seller covenants with the Purchaser that it will perform and comply with each of the following covenants and not engage in any activity prohibited by this SPSA without the prior written consent of the Purchaser authorizing the Seller to engage in such activity (and specifying the terms and conditions (if any) upon which it may engage in such activity):

(a) Except in accordance with the Seller's organizational documents and the Transaction Documents, the Seller shall not, directly or indirectly, (i) declare or pay any dividend or make any distribution on its Capital Securities, whether in cash, property, securities or a combination thereof, to AcelRx or any other owner of a beneficial interest in the Seller or otherwise with respect to any ownership of its Capital Securities, (ii) purchase, redeem, retire or otherwise acquire for value any issued Capital Securities of the Seller or any of its Affiliates or (iii) make any loan or advance to a Person, any purchase or other acquisition of any beneficial interest, Capital Securities, warrants, rights, options, obligations or other securities of such Person, any capital contribution to such Person or any other investment in such Person (other than otherwise as expressly permitted by the Transaction Documents).

(b) The Seller shall not incur or create any Lien over or with respect to any of the Seller's assets, other than any security interest created or required to be created hereunder.

(c) The Seller shall not incur, create, issue, assume, guarantee or otherwise become liable for or with respect to, or become responsible for, the payment or performance of, contingently or otherwise, whether present or future, indebtedness.

(d) The Seller shall not liquidate or dissolve, consolidate with, merge with or into, or sell, convey, transfer, lease or otherwise dispose of the Purchased Assets, the Purchased Interest or all or any material portion of its other property and assets (except that the Seller may make distributions to AcelRx in accordance with the Seller's organizational documents and the Transaction Documents and may transfer assets to the Purchaser and the Collateral Agent in accordance with the Transaction Documents) to, or purchase or otherwise acquire any assets of (except that the Seller may purchase or otherwise acquire assets in accordance with the Transaction Documents), any other Person, or permit any other Person to merge with or into, or consolidate or otherwise combine with, the Seller.

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(e) The Seller shall not, directly or indirectly, issue, deliver or sell, or consent to issue, deliver or sell, any actual, contingent, future or executory membership interests, limited liability company interests, beneficial interests or other equity or ownership interests (however designated, whether voting or non-voting), except for any additional Capital Securities of the Seller issued to AcelRx while AcelRx continues to own all of the outstanding Capital Securities of the Seller.

(f) The Seller shall comply with, and cause compliance with, its organizational documents.

(g) The Seller shall not engage in any business or activity other than purchasing, selling and pledging the Purchased Assets, collecting the Royalties and remaining a party to, and taking the actions required by, the Transaction Documents.

(h) The Seller shall not take any action to waive, repeal, amend, vary, supplement or otherwise modify the organizational documents of the Seller in a manner that would adversely affect (x) the rights, remedies, privileges or preferences of the Purchaser under any of the Transaction Documents or Applicable Law or (y) the Purchased Assets or the Purchased Interest.

(i) The Seller shall not employ any employees other than as required by any provisions of local law; provided, that AcelRx and the Servicer shall not be deemed to be employees for purposes of this Section 5.10(i).

(j) The Seller shall not enter into any agreement prohibiting the ability of the Purchaser to amend or otherwise modify any Transaction Document; provided, that the foregoing prohibition shall not apply to restrictions contained in any Transaction Document.

(k) The Seller shall, or shall cause the Servicer, to take any actions directed by the Purchaser in accordance with the terms of this SPSA or any other Transaction Document, including with respect to the Seller's exercising its rights pursuant to the PSA to cause AcelRx to exercise its audit rights under the License Agreement.

(l) The Seller shall not, directly or indirectly, transfer (including by way of any derivative arrangement) any of its interest in the Purchased Assets to any Person other than the Purchaser, including any interest the Seller may have in the Payment Rights following the achievement of the Capped Payment Amount, at any time before the Purchaser has received the Capped Payment Amount.

ARTICLE VI

THE CLOSING

Section 6.1 Closing. Subject to delivery of the closing deliverables set forth in Section 6.2 by the Seller and Section 6.3 by the Purchaser, the closing of the transactions contemplated hereby (the "Closing") shall take place at 9:00 a.m., Eastern Standard Time, on September 18, 2015 (the "Closing Date"), contemporaneous with the execution of this SPSA, at the offices of Cadwalader, Wickersham & Taft LLP located at One World Financial Center, New York, New York 10281, or on such other date, at such other time or at such other place, in each case as the Parties mutually agree.

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Section 6.2 Closing Deliverables of the Seller. Prior to or at, and as a condition precedent to, the Closing, the Seller shall deliver or cause to be delivered to the Purchaser the following:

(a) the PSA duly executed by each of the Seller and AcelRx;

(b) this SPSA duly executed by the Seller;

(c) the Bill of Sale duly executed by the Seller;

(d) a copy of the Licensee Instruction duly executed by AcelRx, which shall have been delivered to the Licensee in accordance with the License Agreement;

(e) an opinion or opinions of one or more counsel to Seller substantially in the form of Exhibit F;

(f) the Servicing Agreement duly executed by all parties thereto other than the Purchaser;

(g) a certificate of an executive officer of the Seller (the statements made in which shall be true and correct on and as of the Closing Date): (i) attaching copies, certified by such officer as true and complete, of (x) the organizational documents of the Seller and (y) resolutions of the governing body of the Seller authorizing and approving the execution, delivery and performance by the Seller of the Transaction Documents and the transactions contemplated hereby and thereby, (ii) setting forth the incumbency of the officer or officers of the Seller who have executed and delivered the Transaction Documents, including therein a signature specimen of each such officer or officers and (iii) attaching a copy, certified by such officer as true and complete, of a good standing certificate of the appropriate Governmental Authority of the Seller's jurisdiction of organization, stating that the Seller is in good standing under the laws of such jurisdiction;

(h) the duly executed copy of the SACA executed by all parties other than the Purchaser;

(i) evidence reasonably satisfactory to the Purchaser of the release of the Liens on the Purchased Assets granted under the Hercules Agreement;

(j) evidence reasonably satisfactory to the Purchaser that all of the conditions precedent to the Second Amendment becoming effective have been satisfied substantially concurrently with the consummation of the transactions contemplated by this SPSA; and

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(k) each of the Financing Statements and such other certificates and documents the Purchaser may have reasonably requested to create, evidence and perfect the sale, assignment, transfer, conveyance, contribution and grant of the Purchased Interest pursuant to Section 2.1 and the back-up security interest granted pursuant to Section 2.1(d).

Section 6.3 Closing Deliverables of the Purchaser. Prior to or at, and as a condition precedent to, the Closing, the Purchaser shall deliver or cause to be delivered to the Seller the following:

(a) this SPSA duly executed by the Purchaser;

(b) the Bill of Sale duly executed by the Purchaser;

(c) the Servicing Agreement duly executed by the Purchaser;

(d) a certificate of an executive officer of the Purchaser (the statements made in which shall be true and correct on and as of the Closing Date): (i) attaching copies, certified by such officer as true and complete, of (x) the organizational documents of the Purchaser and (y) resolutions of the governing body of the Purchaser authorizing and approving the execution, delivery and performance by the Purchaser of the Transaction Documents and the transactions contemplated hereby and thereby, (ii) setting forth the incumbency of the officer or officers of the Purchaser who have executed and delivered the Transaction Documents, including therein a signature specimen of each such officer or officers and (iii) attaching a copy, certified by such officer as true and complete, of a good standing certificate of the appropriate Governmental Authority of the Seller's jurisdiction of organization, stating that the Purchaser is in good standing under the laws of such jurisdiction;

(e) the duly executed copy of the SACA executed by all parties other than the Seller; and

(f) the Purchase Price in accordance with Section 2.2.

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ARTICLE VII

INDEMNIFICATION

Section 7.1 Indemnification by the Seller. Subject to Section 9.9, the Seller agrees to indemnify and hold harmless the Purchaser and its Affiliates and any or all of their respective partners, directors, trustees, officers, managers, employees, members, agents and controlling persons (each, a "Purchaser Indemnified Party") from and against, and will pay to each Purchaser Indemnified Party the amount of, any and all Losses awarded against or incurred or suffered by such Purchaser Indemnified Party, whether or not involving a Third Party Claim, arising out of (a) any breach of any representation, certification or warranty made by the Seller in any of the Transaction Documents or in any certificate or Servicer Report delivered by the Seller to the Purchaser in writing pursuant to this SPSA or any other Transaction Document, (b) any breach of or default under any covenant or agreement of the Seller in any of the Transaction Documents, (c) any Excluded Liabilities and Obligations, (d) [*], (e) any fees, expenses, costs, liabilities or other amounts, including brokerage or finder's fees or commissions, incurred or owed by the Seller to any brokers, financial advisors or comparable other Persons retained or employed by it or for its benefit in connection with the transactions contemplated by this SPSA, or (f) Third Party Claims arising on or after the Closing Date and asserted against a Purchaser Indemnified Party relating to the transactions contemplated in any Transaction Document or the License Agreement (but, for purposes of clarity, excluding (i) any such Third Party Claims brought by any of the Purchaser's shareholders in their capacity as shareholders (or in the name of the Purchaser as a derivative or similar action for the benefit of the Purchaser's shareholders) against the Purchaser or any of its directors or officers based on any cause of action or claim) and (ii) any such Losses to the extent such Losses arise out of an actual violation of Applicable Law by any Purchaser Indemnified Party or an actual breach by any Purchaser Indemnified Party of any other agreement or obligation to which such Purchaser Indemnified Party is a party or to which it or its assets are otherwise subject or bound; provided, however, that the foregoing shall exclude any indemnification to any Purchaser Indemnified Party (i) that has the effect of imposing on the Seller any recourse liability for Royalties because of the insolvency or other creditworthiness problems of the Licensee or breach of or default under the License Agreement of the Licensee (to the extent such default does not result from the breach or default by the Seller or the Seller's Affiliates of or under the License Agreement) or the insufficiency of the Royalties, whether as a result of the amount of cash flow arising from sales or licensing of the Licensed Product or otherwise, in any case except to the extent resulting from any breach or default by the Seller or the Seller's Affiliates of or under any of the Transaction Documents, (ii) for any matter in respect of which any Seller Indemnified Party would be entitled to indemnification under Section 7.2, (iii) to the extent resulting from the bad faith, gross negligence or willful misconduct of any Purchaser Indemnified Party, (iv) to the extent resulting from the failure of the Licensee to perform any of its obligations under the License Agreement, except to the extent resulting from any breach or default by the Seller or the Seller's Affiliates of or under the License Agreement or the Transaction Documents or (v) to the extent resulting from acts or omissions of the Seller based upon the written instructions from any Purchaser Indemnified Party (unless the Seller is otherwise liable for such Losses pursuant to the terms of this SPSA). With respect to indemnification by the Seller pursuant to this Section 7.1, (i) the Seller's maximum liability shall not exceed an amount equal to (A) [*], *minus* (B) the aggregate amount collected or received by the Purchaser (and any direct or indirect transferee of the Purchaser to whom any interest in the Purchased Interest is transferred) in respect of the Payment Rights or as a result of any payments made by the Seller pursuant to Section 5.4(b) or by AcelRx pursuant to Section 5.4(b) of the PSA, *minus* (C) the aggregate amount collected or received by the Purchaser (and any direct or indirect transferee of the Purchaser to whom any interest in the Purchased Interest is transferred) pursuant to the exercise of its rights under this Section 7.1 or under Section 2.1(a)(vi) (without duplication of any amounts received pursuant to clauses (B) or (D)), *minus* (D) the aggregate amount collected or received by the Purchaser pursuant to Article V of the Servicing Agreement (without duplication of any amounts received pursuant to clauses (B) or (C)).

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Section 7.2 Indemnification by the Purchaser. Subject to Section 9.9, the Purchaser agrees to indemnify and hold each of the Seller and its Affiliates and any or all of their respective partners, directors, officers, managers, members, employees, agents and controlling Persons (each, a "Seller Indemnified Party") harmless from and against, and will pay to each Seller Indemnified Party the amount of, any and all Losses awarded against or incurred or suffered by such Seller Indemnified Party, whether or not involving a Third Party Claim, arising out of (a) any breach of any representation or warranty made by the Purchaser in any of the Transaction Documents to which it is a Party or any certificate delivered by the Purchaser to the Seller in writing pursuant to this SPSA, (b) any breach of or default under any covenant or agreement of the Purchaser in any Transaction Document to which the Purchaser is party or (c) any fees, expenses, costs, liabilities or other amounts, including brokerage or finder's fees or commissions, incurred or owed by the Purchaser to any brokers, financial advisors or comparable other Persons retained or employed by it or for its benefit in connection with the transactions contemplated by this SPSA; provided; however, that the foregoing shall exclude any indemnification to any Seller Indemnified Party (i) to the extent resulting from the bad faith, gross negligence or willful misconduct of any Seller Indemnified Party, (ii) for any matter in respect of which any Purchaser Indemnified Party would be entitled to indemnification under Section 7.1 or (iii) to the extent resulting from acts or omissions of the Purchaser or any of its Affiliates based upon the written instructions from any Seller Indemnified Party (unless the Purchaser is otherwise liable for such Losses pursuant to the terms of this SPSA).

Section 7.3 Procedures for Third Party Claims. If any Third Party Claim shall be brought or alleged against an indemnified party in respect of which indemnity is to be sought against an indemnifying party pursuant to Section 7.1 or Section 7.2, the indemnified party shall, promptly after receipt of notice of the commencement of such Third Party Claim, notify the indemnifying party in writing of the commencement thereof, enclosing a copy of all papers served, if any; provided, that the omission to so notify such indemnifying party will not relieve the indemnifying party from any liability that it may have to any indemnified party under Section 7.1 or Section 7.2 unless, and only to the extent that, the indemnifying party is actually prejudiced by such omission. In the event that any Third Party Claim is brought against an indemnified party and it notifies the indemnifying party of the commencement thereof in accordance with this Section 7.3, the indemnifying party will be entitled, at the indemnifying party's sole cost and expense, to participate therein and, to the extent that it may wish, to assume the defense thereof, with counsel selected by such indemnifying party, but reasonably satisfactory to such indemnified party (which counsel shall not, except with the consent of the indemnified party, be the current counsel to the indemnified party with respect to such Third Party Claim), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party will not, subject to the immediately succeeding sentence, be liable to such indemnified party under this ARTICLE VII for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation. In any such Third Party Claim, an indemnified party shall have the right to retain its own counsel, but the reasonable fees and expenses of such counsel shall be at the sole cost and expense of such indemnified party unless (a) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel, (b) the indemnifying party has assumed the defense of such proceeding and has failed within a reasonable time to retain counsel reasonably satisfactory to such indemnified party or (c) the named parties to any such Third Party Claim (including any impleaded parties) include both the indemnifying party and the indemnified party and representation of both parties by the same counsel would be inappropriate due to actual or potential conflicts of interests between them based on the advice of counsel to the indemnified party. It is agreed that the indemnifying party shall not, in connection with any Third Party Claim or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate law firm (in addition to local counsel where necessary) for all such indemnified parties. The indemnifying party shall not be liable for any settlement of any Third Party Claim effected without its prior written consent (which shall not be unreasonably withheld, conditioned or delayed), but, if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any Loss by reason of such settlement or judgment. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or discharge of any pending or threatened Third Party Claim in respect of which any indemnified party is or could have been a party and indemnity could be sought hereunder by such indemnified party, unless such settlement, compromise or discharge, as the case may be, (i) includes an unconditional, full written release of such indemnified party, in form and substance reasonably satisfactory to the indemnified party, from all liability on claims that are the subject matter of such claim or proceeding, (ii) does not include any statement as to an admission of fault, culpability or failure to act by or on behalf of any indemnified party and (iii) does not impose on such indemnified party any continuing obligations or restrictions other than customary and reasonable confidentiality obligations relating to such claim, settlement or compromise.

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Section 7.4 Other Claims.(a) A claim by an indemnified party under this ARTICLE VII for any matter not involving a Third Party Claim and in respect of which such indemnified party seeks indemnification hereunder may be made by delivering, in good faith, a written notice of demand to the indemnifying party, which notice shall contain (a) a description and the amount of any Losses incurred or suffered or reasonably expected to be incurred or suffered by the indemnified party to the extent known, (b) a statement that the indemnified party is entitled to indemnification under this ARTICLE VII for such Losses and a reasonable explanation of the basis therefor, and (c) a demand for payment in the amount of such Losses. For all purposes of this Section 7.4, the Seller shall be entitled to deliver such notice of demand to the Purchaser on behalf of the Seller Indemnified Parties, and the Purchaser shall be entitled to deliver such notice of demand to the Seller on behalf of the Purchaser Indemnified Parties. Within fourteen (14) days after receipt by the indemnifying party of any such notice, the indemnifying party may deliver to the indemnified party that delivered the notice a written response in which the indemnifying party (a) agrees that the indemnified party is entitled to the full amount of the Losses claimed in the notice from the indemnified party; (b) agrees that the indemnified party is entitled to part, but not all, of the amount of the Losses claimed in the notice from the indemnified party; or (c) indicates that the indemnifying party disputes the entire amount of the Losses claimed in the notice from the indemnified party. If the indemnified party does not receive such a response from the indemnifying party within such fourteen (14) day period, then the indemnifying party shall be conclusively deemed to have agreed that the indemnified party is entitled to the full amount. If the indemnifying party and the indemnified party are unable to resolve any dispute relating to any amount of the Losses claimed in the notice from the indemnified party within thirty (30) days after the delivery of the response to such notice from the indemnifying party, then the Parties shall be entitled to resort to any legal remedy available to such Party to resolve such dispute that is provided for in this SPSA, subject to all the terms, conditions and limitations of this SPSA.

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Section 7.5 Time Limitations.(a) (a) The Seller shall have liability under Section 7.1(a) with respect to any breach of any representation or warranty made by the Seller in any of the Transaction Documents or in any certificates or Servicer Reports delivered by the Seller to the Purchaser in writing pursuant to this SPSA or any other Transaction Document, except with respect to the proviso in this Section 7.5, only if the Purchaser notifies the Seller of a claim, specifying the factual basis of such claim in reasonable detail, on or prior to the date that is [*] years after the date such representation or warranty was first made; provided, that, notwithstanding the foregoing, such survival period for the representations and warranties made by the Seller in Section 3.8 before the expiration of which the Purchaser must provide notice to the Seller with respect to a claim for a breach shall be [*] years from the date such representations and warranties were first made.

(b) The Purchaser shall have liability under Section 7.2 with respect to any breach of any representation or warranty made by the Purchaser in any of the Transaction Documents to which it is a party or any certificate delivered by the Purchaser to the Seller in writing pursuant to this SPSA or any other Transaction Document only if, on or prior to the date that is two (2) years after the date such representation or warranty was first made, the Seller notifies the Purchaser of such claim, specifying the factual basis of such claim in reasonable detail.

Section 7.6 Exclusive Remedy. Except for any claims for specific performance pursuant to Section 9.2, and as may be set forth in Section 9.9, and the rights and remedies available to the Purchaser under the PSA as a third-party beneficiary of the PSA to the extent specified therein, following the Closing, the indemnification afforded by this ARTICLE VII shall be the sole and exclusive remedy for any and all Losses awarded against or incurred or suffered by the Purchaser Indemnified Parties against the Seller, and the Seller Indemnified Parties against the Purchaser, as the case may be, in connection with the transactions contemplated by the Transaction Documents, including with respect to any breach of any representation or warranty made by a Party in any of the Transaction Documents or any certificate delivered by a Party to the other Party in writing pursuant to this SPSA or any breach of or default under any covenant or agreement by a Party pursuant to any Transaction Document, in each case, other than (x) any breach or default resulting from the fraud, willful misconduct or bad faith of such Party; provided that any action, suit or proceeding brought with respect to any claim described in clause (x) above shall be subject to the monetary limitation on recovery by indemnification pursuant to Section 7.1 (in the aggregate with any other amounts that are subtracted from the [*] amount in determining the monetary limitation on recovery by indemnification pursuant to Section 7.1).

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Section 7.7 Limitations.(a) (a) The Purchaser acknowledges and agrees that, other than the representations and warranties of the Seller specifically contained in any of the Transaction Documents or in any certificate or Servicer Report delivered by the Seller to the Purchaser in writing pursuant to this SPSA or any other Transaction Document, there are no representations or warranties of the Seller or any other Person either expressed or implied with respect to the Royalties, the Purchased Interest, Net Sales, the AcelRx Intellectual Property Rights, the Purchased Assets, the Payment Rights, applicable regulatory approvals, the Licensed Product, the License Agreement, this SPSA or the transactions contemplated hereby or in any of the other Transaction Documents or otherwise, and that it does not rely on, and shall have no remedies in respect of, any representation or warranty not specifically set forth in any of the Transaction Documents or in any certificate or Servicer Report delivered by the Seller to the Purchaser in writing pursuant to this SPSA or any other Transaction Document. Without limiting the foregoing, the Purchaser acknowledges and agrees that, except as expressly set forth in any representation or warranty in any of the Transaction Documents or in any certificate or Servicer Report delivered by the Seller to the Purchaser in writing pursuant to this SPSA or any other Transaction Document, the Purchaser shall have no claim or right regarding Losses pursuant to this ARTICLE VII or otherwise with respect to any information, documents or materials furnished or made available to the Purchaser or any of its Affiliates or its or its Affiliates' Representatives in any data room, presentation, interview or in any other form or manner relating to the transactions contemplated hereby or by the License Agreement or any of the other Transaction Documents.

(b) Notwithstanding anything herein to the contrary, but subject to the remainder of this Section 7.7, in no event shall any Seller Indemnified Party or Purchaser Indemnified Party have any liability for, or Losses be deemed to include, any special, consequential, punitive or exemplary damages, whether in contract or tort, regardless of whether the other Party shall be advised, shall have reason to know, or in fact shall know of the possibility of such damages suffered or incurred by any such Seller Indemnified Party or Purchaser Indemnified Party in connection with this SPSA, any of the other Transaction Documents or any of the transactions contemplated hereby or thereby, except in the event such damages are determined, by a court of competent jurisdiction, to be, and become, payable to a Third Party.

ARTICLE VIII

TERMINATION

Section 8.1 Termination of Agreement. This SPSA shall terminate on the earlier of (a) twelve (12) months after the later of the last day of the Royalty Term or the date of delivery to the Purchaser of any final audit report after such last day of the Royalty Term (or the last day following the last day of the Royalty Term on which the Seller, pursuant to Section 5.7, continues to have the right to cause an audit to occur under Section 5.7 of the PSA), (b) upon completion of any audit for the year in which the Purchaser has received the Capped Payment Amount and settlement of any payments then due to the Purchaser as demonstrated by such audit (or the last day following the time when the Purchaser has so received the Capped Payment Amount that the Seller, pursuant to Section 5.7, continues to have the right to cause an audit to occur under Section 5.7 of the PSA with respect to the year in which the Purchaser so received the Capped Payment Amount) and (c) mutual written agreement of the Purchaser and the Seller.

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Section 8.2 Effect of Termination. Upon the termination of this SPSA pursuant to Section 8.1, this SPSA shall become void and of no further force and effect; provided, however, that (a) the provisions of Section 5.2, ARTICLE VII, this ARTICLE VIII and ARTICLE IX shall survive such termination and shall remain in full force and effect, (b) if, upon the termination of this SPSA, any Payment Rights are payable to the Purchaser, this SPSA shall remain in full force and effect until any and all such payments have been made in full, and (except as provided in this Section 8.2) solely for that purpose, and (c) nothing contained in this Section 8.2 shall relieve either Party from liability for any breach of this SPSA that occurs prior to or after (with respect to any provisions of this SPSA that remain in effect after such termination in accordance with this Section 8.2).

ARTICLE IX

MISCELLANEOUS

Section 9.1 Survival. All representations, warranties and covenants made in this SPSA, in any other Transaction Document or in any certificate delivered pursuant to this SPSA shall survive the execution and delivery of this SPSA and the Closing for the periods set forth in this SPSA, such other Transaction Document or such certificate, as applicable. The rights hereunder to indemnification and payment of Losses or other remedies based on any such representations, warranties or covenants shall not be affected by any investigation conducted with respect to, or any knowledge acquired (or capable of being acquired) at any time in respect of, in each case, whether before or after the execution and delivery of this SPSA or the Closing, the accuracy or inaccuracy of or compliance with, any such representation, warranty or covenant.

Section 9.2 Specific Performance. Each Party acknowledges and agrees that, if it fails to perform any of its obligations under any of the Transaction Documents, the other Party may have no adequate remedy at law. In such event, each Party agrees that the other Party shall have the right, in addition to any other rights it may have (whether at law or in equity), to seek specific performance of this SPSA and to pursue any other equitable remedies including injunction. Each Party may pursue such specific performance or other equitable remedies without going through any of the procedures set forth in ARTICLE VII.

Section 9.3 Notices. All notices, consents, waivers and other communications hereunder shall be in writing and shall be effective (a) upon receipt when sent by registered or certified mail, return receipt requested, postage prepaid, with such receipt to be effective the date of delivery indicated on the return receipt, (b) upon receipt when sent by an overnight courier, (c) on the date personally delivered to an authorized officer of the Party to which sent or (d) on the date transmitted by facsimile or other electronic transmissions with a confirmation of receipt, in all cases, with a copy emailed to the recipient at the applicable address, addressed to the recipient as follows:

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if to the Seller, to:

c/o AcelRx Pharmaceuticals, Inc.
351 Galveston Drive
Redwood City, California 94063
Attention: Chief Executive Officer
Telephone: 650-216-3500
Facsimile: 650-216-6500
Email: hrosen@acelrx.com

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

AcelRx Pharmaceuticals, Inc.
351 Galveston Drive
Redwood City, California 94063
Attention: Chief Financial Officer
Telephone: 650-216-3500
Facsimile: 650-216-6500
Email: tmorris@acelrx.com

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

Cooley LLP
4401 Eastgate Mall
San Diego, CA 92121
Attention: Matthew Browne
Telephone: 858-550-6000
Facsimile: 858-550-6420
Email: brownemt@cooley.com

if to the Purchaser, to:

PDL BioPharma, Inc.
932 Southwood Blvd.
Incline Village, Nevada 89451
Attention: General Counsel
Telephone: 775-832-8500
Facsimile: 775-832-8501
Email: general.counsel@pdl.com

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

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

Gibson, Dunn & Crutcher LLP
333 South Grand Avenue
Los Angeles, California 90071-3197
Attention: Karen Bertero, Esq.
Telephone: 213-229-7360
Facsimile: 213-229-6360
Email: KBertero@gibsondunn.com

Each Party may, by notice given in accordance herewith to the other Party, designate any further or different address to which subsequent notices, consents, waivers and other communications shall be sent.

Section 9.4 Assignment; Successors and Assigns. The Seller shall not be entitled to assign any of its rights or delegate any of its obligations under this SPSA without the prior written consent of the Purchaser (which, for purposes of clarity, the Parties acknowledge and agree shall not prohibit any such delegation that is effected under the Servicing Agreement to the extent such delegation is contemplated by the express terms thereof and which, for purposes of clarity, the Parties acknowledge and agree shall not require the Seller to obtain a consent from Purchaser in connection with any transaction effected by AcelRx in accordance with Section 5.10 of the PSA). Subject to compliance with Section 5.2, the Purchaser may, without the consent of the Seller, assign any of its rights and delegate any of its obligations under this SPSA without restriction; provided, however, that, notwithstanding anything to the contrary set forth in this SPSA, the Purchaser shall not, without the prior written consent of the Seller, (i) effect any such assignment if such assignment would result in the need for the Seller or the Servicer to work at any time with more than one Person (which, for purposes of clarity, may be an agent or other representative for multiple Persons) in connection with the Seller's or the Servicer's administration of, and performance of its obligations under, this SPSA or the Servicing Agreement or any of the other Transaction Documents, as applicable, (ii) assign any of the Purchased Interest if such assignment would violate any provision contained in the License Agreement or in the Licensee Consent, (iii) assign any of its rights or delegate any of its obligations hereunder if any such assignment or delegation would violate any of the provisions contained in the License Agreement or the Licensee Consent, (iv) assign any of the Purchased Interest or its other rights hereunder to any Person to whom such assignment would be illegal, or with whom a contractual relationship with the Seller, Licensor or the Licensee would be illegal, under Applicable Law of any jurisdiction or (v) assign any of the Purchased Interest or its other rights hereunder, or (if the assets of the Purchaser consist primarily of the Purchased Interest) any Capital Securities of or other participatory interest in the Purchaser, to any Person that is not a Permitted Holder. A " Permitted Holder" is a Person that is a "qualified purchaser" within the meaning of Sections 2(a)(51) and 3(c)(7) of the United States Investment Company Act of 1940, as amended, including the rules and regulations thereunder and a "qualified institutional buyer" within the meaning of Section 5 of the Securities Act of 1933. The Purchaser shall give written notice to the Seller of the completion of any assignment permitted by this Section 9.4 promptly (but in any event within five (5) Business Days) after the occurrence thereof. Any purported assignment of rights or delegation of obligations in violation of this Section 9.4 will be void. Subject to the foregoing, this SPSA will apply to, be binding upon, and inure to the benefit of, the successors and permitted assigns of the Parties.

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Section 9.5 Independent Nature of Relationship. The relationship between the Seller and the Purchaser is solely that of seller and purchaser, and neither the Seller nor the Purchaser has any fiduciary or other special relationship with the other Party or any of its Affiliates. This SPSA is not a partnership or similar agreement, and nothing contained herein or in any other Transaction Document shall be deemed to constitute the Seller and the Purchaser as a partnership, an association, a joint venture or any other kind of entity or legal form for any purposes, including any Tax purposes. The Parties agree that they shall not take any inconsistent position with respect to such treatment in a filing with any Governmental Authority.

Section 9.6 Entire Agreement. This SPSA, together with the Exhibits and Schedules hereto, the other Transaction Documents and the Confidentiality Agreement, constitute the entire agreement between the Parties, and supersede all prior agreements, understandings and negotiations, both written and oral, between the Parties, with respect to the subject matter of this SPSA.

Section 9.7 Governing Law. (a) THIS SPSA SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL SUBSTANTIVE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO THE RULES THEREOF RELATING TO CONFLICTS OF LAW OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK, AND THE OBLIGATIONS, RIGHTS AND REMEDIES OF THE PARTIES HEREUNDER SHALL BE DETERMINED IN ACCORDANCE WITH SUCH LAWS.

(a) Each Party irrevocably and unconditionally submits, for itself and its property, to the exclusive jurisdiction of (i) the United States District Court for the Southern District of New York and (ii) the Supreme Court of the State of New York, Borough of Manhattan, for purposes of any claim, action, suit or proceeding arising out of this SPSA, any of the other Transaction Documents or any of the transactions contemplated hereby or thereby, and agrees that all claims in respect thereof shall be heard and determined only in such courts. Each Party agrees to commence any such claim, action, suit or proceeding only in the United States District Court for the Southern District of New York or, if such claim, action, suit or proceeding cannot be brought in such court for jurisdictional reasons, in the Supreme Court of the State of New York, Borough of Manhattan, and agrees not to bring any such claim, action, suit or proceeding in any other court. Each Party hereby waives, and agrees not to assert in any such claim, action, suit or proceeding, to the fullest extent permitted by Applicable Law, any claim that (i) such Party is not personally subject to the jurisdiction of such courts, (ii) such Party and such Party's property is immune from any legal process issued by such courts or (iii) any claim, action, suit or proceeding commenced in such courts is brought in an inconvenient forum. Each Party agrees that a final judgment in any such claim, action, suit or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by Applicable Law. Each Party acknowledges and agrees that this Section 9.7(b) constitutes a voluntary and bargained-for agreement between the Parties.

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(b) The Parties agree that service of process in any claim, action, suit or proceeding referred to in Section 9.7(b) may be served on either Party anywhere in the world, including by sending or delivering a copy of such process to such Party in any manner provided for the giving of notices in Section 9.3. Nothing in this SPSA will affect the right of either Party to serve process in any other manner permitted by Applicable Law. Each Party waives personal service of any summons, complaint or other process, which may be made by any other means permitted by New York law.

Section 9.8 Waiver of Jury Trial. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS SPSA, OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF THE OTHER PARTY HERETO HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT THE OTHER PARTY HERETO WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTY HERETO HAVE BEEN INDUCED TO ENTER INTO THIS SPSA BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 9.8.

Section 9.9 Severability. If one or more provisions of this SPSA are held to be invalid, illegal or unenforceable by a court of competent jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision of this SPSA, which shall remain in full force and effect, and the Parties shall replace such invalid, illegal or unenforceable provision with a new provision permitted by Applicable Law and having an economic effect as close as possible to the invalid, illegal or unenforceable provision. Any provision of this SPSA held invalid, illegal or unenforceable only in part or degree by a court of competent jurisdiction shall remain in full force and effect to the extent not held invalid or unenforceable.

Section 9.10 Counterparts. This SPSA may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This SPSA shall become effective when each Party shall have received a counterpart hereof signed by the other Party. Any counterpart may be executed by facsimile or other similar means of electronic transmission, including "PDF", and such facsimile or other electronic transmission shall be deemed an original.

Section 9.11 Amendments; No Waivers. Neither this SPSA nor any term or provision hereof may be amended, supplemented, restated, waived, changed, terminated or modified except with the written consent of the Parties. No failure or delay by either Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No notice to or demand on either Party in any case shall entitle it to any notice or demand in similar or other circumstances. No waiver or approval hereunder shall, except as may otherwise be stated in such waiver or approval, be applicable to subsequent transactions. No waiver or approval hereunder shall require any similar or dissimilar waiver or approval thereafter to be granted hereunder.

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Section 9.12 No Third Party Rights. Other than the Parties, and except as set forth in the last sentence of Section 2.4, Section 5.2(f) and Section 5.5(e) with respect to AcelRx, which is an express intended third party beneficiary of those provisions, no Person will have any legal or equitable right, remedy or claim under or with respect to this SPSA. This SPSA may be amended or terminated, and any provision of this SPSA may be waived, without the consent of any Person who is not a Party (other than the last sentence of Section 2.4, Section 5.2(f) and Section 5.5(e), with respect to which any such amendment, termination or waiver would require the consent of AcelRx (including as Licensor with respect to Section 5.5(e) notwithstanding Section 9.11). The Seller shall enforce any legal or equitable right, remedy or claim under or with respect to this SPSA for the benefit of the Seller Indemnified Parties and the Purchaser shall enforce any legal or equitable right, remedy or claim under or with respect to this SPSA for the benefit of the Purchaser Indemnified Parties.

Section 9.13 Table of Contents and Headings. The Table of Contents and headings of the Articles and Sections of this SPSA have been inserted for convenience of reference only, are not to be considered a part hereof and shall in no way modify or restrict any of the terms or provisions hereof.

Section 9.14 Cumulative Remedies. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by Applicable Law.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the Parties have executed this SPSA as of the day and year first written above.

ARPI LLC

By AcelRx Pharmaceuticals, Inc., its sole Member

By: /s/ Timothy E. Morris
Name: Timothy E Morris
Title: Chief Financial Officer

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IN WITNESS WHEREOF, the Parties have executed this SPSA as of the day and year first written above.

PDL BIOPHARMA, INC.

By: /s/ John McLaughlin
Name: John McLaughlin
Title: President and CEO

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EXHIBIT A

FORM OF BILL OF SALE

BILL OF SALE

This BILL OF SALE (this "Bill of Sale") is dated as of September 18, 2015 (the "Closing Date") and executed and delivered by ARPI LLC, a Delaware limited liability company (the "Seller"), in favor of PDL BioPharma, Inc., a Delaware corporation (the "Purchaser" and, together with the "Seller" the "Parties").

RECITALS

WHEREAS, the Seller and the Purchaser are parties to that certain Subsequent Purchase and Sale Agreement, dated as of September 18, 2015 (the "SPSA"), pursuant to which, among other things, the Seller agrees to sell, assign, transfer, contribute, grant and convey to the Purchaser, and the Purchaser agrees to purchase, acquire and accept from the Seller, all of the Seller's right, title and interest in, to and under the Purchased Interest, including the Payment Rights, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts), for the consideration described in the SPSA; and

WHEREAS, the Parties now desire to carry out the purposes of the SPSA by the execution and delivery of this Bill of Sale evidencing the Purchaser's purchase, acquisition and acceptance of all of the Seller's right, title and interest in, to and under the Purchased Interest, including the Payment Rights, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts), for the consideration described in the SPSA.

NOW, THEREFORE, in consideration of the premises and the mutual agreements set forth in the SPSA and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

1. The Seller, by this Bill of Sale, does hereby sell, assign, grant, transfer, contribute and convey to the Purchaser, and the Purchaser (and its successors and permitted assigns) does hereby purchase, acquire and accept, all of the Seller's right, title and interest in, to and under the Purchased Interest, including the Payment Rights, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts).

2. The Parties acknowledge that the Purchaser is not assuming any of the Excluded Liabilities and Obligations.

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3. The Seller hereby covenants that, from time to time after the delivery of this Bill of Sale, at Purchaser's request, the Seller will do, execute, acknowledge and deliver, or will cause to be done, executed, acknowledged and delivered such further acts, conveyances, transfers, assignments, powers of attorney and assurances as the Purchaser may reasonably require to sell, assign, transfer, grant, contribute and convey to the Purchaser, and to put the Purchaser in possession of, the Purchased Interest, including the Payment Rights, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts), for the consideration described in the SPSA (which, for purposes of clarity, shall not require the Seller to make any request to, or to take any action with respect to, Grünenthal, except as set forth the Transaction Documents).

4. This Bill of Sale (i) is made pursuant to, and is subject to the terms of, the SPSA and nothing in this Bill of Sale shall alter any liability or obligation of the Seller and the Purchaser arising under the SPSA, which shall govern the representations, warranties and obligations of the Parties with respect to the Purchased Interest, including the Payment Rights, together with any and all additions and accessions to any thereof, all improvements thereto, all substitutions and replacements therefor, and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts) and (ii) shall be binding upon and inure to the benefit of the Seller, the Purchaser and their respective successors and permitted assigns.

5. THIS BILL OF SALE SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL SUBSTANTIVE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO THE RULES THEREOF RELATING TO CONFLICTS OF LAW OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK, AND THE OBLIGATIONS, RIGHTS AND REMEDIES OF THE PARTIES HEREUNDER SHALL BE DETERMINED IN ACCORDANCE WITH SUCH LAWS.

6. This Bill of Sale may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all of such counterparts shall together constitute but one and the same instrument.

7. The following terms as used herein shall have the following respective meanings (and capitalized terms used herein, but not otherwise defined herein, shall have the meaning ascribed to them in the SPSA):

"AcelRx" means AcelRx Pharmaceuticals, Inc., a Delaware corporation.

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means 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, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

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"Capital Securities" means, with respect to any Person, all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) of such Person's capital, whether now outstanding or issued after the Closing Date, including common shares, ordinary shares, preferred shares, membership interests or share capital in a limited liability company or other Person, limited or general partnership interests in a partnership, beneficial interests in trusts or any other equivalent of such ownership interest or any options, warrants and other rights to acquire such shares or interests, including rights to allocations and distributions, dividends, redemption payments and liquidation payments.

"Capped Payment Amount" means $195,000,000.

"Closing Date" means September 18, 2015.

"Excluded Liabilities and Obligations" has the meaning set forth in Section 2.3 of the SPSA.

"Excluded Payments" means all amounts due or paid to AcelRx or any of its Affiliates other than the Royalties, including all amounts due or paid to AcelRx or any of its Affiliates pursuant to Section 7.1, Section 7.2(a), Section 7.2(b) (other than the first four milestone payments thereunder), Section 7.2(c) or Section 7.4 of the License Agreement.

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

"First Commercial Sale" means "First Commercial Sale" as defined in Section 1.51 of the License Agreement.

"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any country or jurisdiction.

"Grünenthal" means Grünenthal GmbH, a German company.

"Initial Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between AcelRx and the Seller.

"License Agreement" means that certain Collaboration and License Agreement, dated as of December 16, 2013, between Licensor and the Licensee, as amended from time to time (including by the Licensee Consent and, for amendments entered into following the Closing Date, amended in a manner consistent with the terms of the PSA and the SPSA).

"Licensee" means Grünenthal, in its capacity as licensee under the License Agreement.

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"Licensee Consent" means that certain letter agreement, dated July 17, 2015, by and between Licensor and the Licensee, regarding, among other things, the transfer of the Purchased Assets by the Licensor to the Seller and the further transfer of the Purchased Interest by the Seller to the Purchaser.

"Licensee Instruction" means the irrevocable notice and direction to the Licensee in the form set forth in Exhibit B to the PSA.

"Licensor" means AcelRx, in its capacity as licensor under the License Agreement.

"Licensor Retained Amounts" means in the aggregate (i) the portion of Royalties payable or paid by the Licensee from time to time, and any interest on late payments thereof, that is in each case in excess of the amounts constituting the Royalties Interest (including interest on late payments thereof), (ii) without duplication of any of the amounts described in clause (i), any amount deemed Licensor Retained Amounts under the third sentence of Section 5.4(b) of the PSA or the third sentence of Section 5.4(b) of the SPSA, and (iii) all payments that constitute Excluded Payments.

"Manufacture and Supply Agreement" means the Manufacture and Supply Agreement, dated as of December 16, 2013, between AcelRx and Grünenthal, as amended from time to time.

"New Arrangement" has the meaning set forth in Section 5.6(a) of the PSA.

"New License Agreement" has the meaning set forth in Section 5.6(a) of the PSA.

"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any intellectual property rights that are Patents.

"Patents" means "Patents" as defined in Section 1.91 of the License Agreement.

"Payment Rights" means the right to receive an amount of Royalties equal to the Royalties Interest, subject to the Capped Payment Amount, and the right to receive interest payable or paid pursuant to the License Agreement on late payments of amounts constituting the Royalties Interest (with such amounts in respect of which interest is paid not exceeding the Capped Payment Amount).

"Permitted Set-off" means any Set-off against royalties or other amounts payable to Licensor by Licensee under the License Agreement that is expressly permitted under Sections 7.3(b), 7.3(c) or 7.3(d) of the License Agreement.

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

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"PSA" means that certain Purchase and Sale Agreement, dated as of September 18, 2015, between AcelRx and the Seller.

"Purchased Interest" has the meaning set forth in Section 2.1 of the SPSA.

"Purchaser Portion" means (a) with respect to (i) all Royalties other than the first four milestone payments under Section 7.2(b) of the License Agreement and (ii) all other related amounts included in the definition of "Royalties" with respect to the Royalties described in clause (i), seventy-five percent (75%) of a specified amount that is payable or has been paid, and (b) solely with respect to Royalties that consist of the first four milestone payments under Section 7.2(b) of the License Agreement and all other related amounts included in the definition of "Royalties" with respect to such Royalties, eighty percent (80%) of a specified amount that is payable or has been paid.

"Royalties" has the meaning set forth in Section 1.1 of the SPSA.

"Royalties Commencement Date" means the date after the Closing Date of the First Commercial Sale in the first country in the Territory in which such First Commercial Sale occurs.

"Royalties Interest" means the Purchaser Portion of Royalties.

"Royalty Reduction" has the meaning set forth in the PSA.

"Royalty Term" means the period commencing on the Royalties Commencement Date, and ending on the last day of the last to expire "Royalty Term" as defined in Section 7.3(e) of the License Agreement.

"SACA" means the Security and Control Agreement, dated as of the Closing Date, among the Seller, the Purchaser, the servicer thereunder and U.S. Bank National Association as initial collateral agent and initial depositary agent thereunder.

"Servicing Agreement" means that certain Servicing Agreement, dated September 18, 2015, among AcelRx, as the initial servicer, the Seller and the Purchaser.

"Set-off" means any set-off, off-set, charge, reduction or similar deduction; provided, however, that "Set-off" shall not include any Royalty Reduction.

"Subsequent Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Seller and the Purchaser.

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, sales, use, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

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"Territory" means the "Territory" as defined under Section 1.111 of the License Agreement, but including Australia only for so long as Australia remains part of the Territory pursuant to the License Agreement.

"Transaction Documents" means the PSA, the Initial Bill of Sale, the Licensee Instruction, the SPSA, the Subsequent Bill of Sale, the Servicing Agreement and the SACA.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided, that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(d) of the SPSA is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of Delaware, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of the SPSA and any financing statement relating to such perfection or effect of perfection or non-perfection.

"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

[Signature page follows]

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IN WITNESS WHEREOF, the Parties have executed this Bill of Sale as of the day and year first written above.

ARPI LLC

By AcelRx Pharmaceuticals, Inc., its sole Member

By: _____
Name: Timothy E. Morris
Title: Chief Financial Officer

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IN WITNESS WHEREOF, the Parties have executed this Bill of Sale as of the day and year first written above.

PDL BIOPHARMA, INC.

By: _____
Name:
Title:

EXHIBIT A-8

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EXHIBIT B

PRESS RELEASE

Print Page Close Window

News Release

ARTICLE IAcelRx Pharmaceuticals Receives $65 Million from the Partial Sale of Zalviso™ European Royalties and Commercial Milestones to PDL BioPharma

REDWOOD CITY, Calif., Sept. 21, 2015 /PRNewswire/ -- AcelRx Pharmaceuticals, Inc. (Nasdaq: ACRX), a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for the treatment of acute and breakthrough pain, today announced the monetization of the expected royalty stream from the sales of Zalviso™ (sufentanil sublingual tablet system) in the European Union by its commercial partner Grunenthal GmbH. Gross proceeds from the sale are $65 million from PDL BioPharma (NASDAQ: PDLI). Specifically, PDL will receive 75% of the European royalties under the Grunenthal license as well as 80% of the first four commercial milestones, subject to a capped amount. AcelRx will receive 25% of the royalties, 20% of the first four commercial milestones, 100% of the remaining commercial milestones and all development milestones, including a potential $15 million payment for the approval of the Zalviso MAA. The proceeds from the transaction will provide AcelRx with additional operating capital, which will be used for general corporate purposes, including regulatory activities associated with ARX-04 and Zalviso.

Timothy E. Morris, chief financial officer of AcelRx Pharmaceuticals, commented, "This transaction provides AcelRx with significant capital in a non-dilutive manner. It will increase our estimated cash at year end to over $100 million and should provide sufficient capital to complete regulatory submissions for ARX-04 in the U.S. and Europe, and to conduct limited additional work on Zalviso, if needed, in preparation for re-submitting a New Drug Application to the U.S. Food and Drug Administration."

The transaction will be treated as a sale for tax purposes. AcelRx has established a wholly owned subsidiary, ARPI LLC, to facilitate the transaction. Credit Suisse acted as sole structuring and financial advisor to AcelRx in connection with the transaction. AcelRx was represented by Cooley LLP, PDL by Gibson, Dunn & Crutcher LLP and Credit

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Suisse by Cadwalader, Wickersham & Taft LLP.

Separately, concurrently with the closing of the royalty monetization, AcelRx amended its existing credit facility with Hercules Technology Growth Capital, Inc. (NYSE: HTGC), which includes an interest only period from October 1, 2015 through March 31, 2016 (with the potential for further extension to September 30, 2016 upon satisfaction of certain conditions). Loans under the credit facility will mature on October 31, 2017. In connection with the amendment, AcelRx reduced the exercise price of warrants previously issued to Hercules in connection with the credit facility.

About AcelRx Pharmaceuticals, Inc.
AcelRx Pharmaceuticals, Inc. is a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for the treatment of acute pain. In the US, the Company's late-stage pipeline includes ARX-04 (sufentanil sublingual tablet, 30 mcg) for the treatment of moderate-to-severe acute pain in a medically supervised setting; and Zalviso™ (sufentanil sublingual tablet system) for the management of moderate-to-severe acute pain in adult patients in the hospital setting.

ARX-04 delivers 30 mcg sufentanil sublingual, a high therapeutic index opioid, through a disposable, pre-filled, single-dose applicator (SDA). AcelRx has reported positive results from the pivotal Phase 3 SAP301 ambulatory surgery study, and will be advancing ARX-04 into a study in emergency room patients in 2015. Zalviso delivers 15 mcg sufentanil sublingual tablets through a non-invasive delivery route via a pre-programmed, patient-controlled analgesia device. In response to the New Drug Application (NDA) AcelRx submitted to the U.S. Food and Drug Administration (FDA) seeking approval for Zalviso, the Company received a Complete Response Letter (CRL) on July 25, 2014. The FDA has requested an additional clinical study prior to the resubmission of the Zalviso NDA.

The Company has two additional pain treatment product candidates, ARX-02 and ARX-03, which have completed Phase 2 clinical development. For additional information about AcelRx's clinical programs, please visitwww.acelrx.com.

Forward Looking Statements
This press release contains forward-looking statements, including, but not limited to, statements related to potential milestones payments under the Grunenthal agreement and expected royalty stream from the sales of Zalviso in the European Union by Grunenthal; future financial results, including anticipated cash balance at year-end 2015 and use of proceeds from the sale of royalty and milestone payments to PDL BioPharma; potential extension of the interest-only period under amended credit facility with Hercules Technology Growth Capital, Inc.; the process and timing of anticipated future development of AcelRx's product candidates, including Zalviso and ARX-04, including the timing and potential additional clinical work necessary for resubmission of Zalviso NDA to the FDA; potential approval of Zalviso and the timing of commercial launch of Zalviso in Europe; and the anticipated timing of the emergency room study for ARX-04. These forward-looking statements are based on AcelRx's current expectations and inherently involve significant risks and uncertainties. AcelRx's actual results and the

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timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation, risks related to: any delays or inability to obtain and maintain regulatory approval of its product candidates, including Zalviso and ARX-04, in the United States and Europe; any delay of the European Commission's decision regarding Zalviso; inability to successfully manufacture Zalviso to meet the requirements of Grunenthal and potential delays in the timing of the European launch; AcelRx's ability to receive milestones and royalty payments under the Grunenthal agreement; the market potential for its product candidates, including Zalviso and ARX-04, in the United States and Europe; its ability to timely resubmit Zalviso NDA to the FDA and to receive regulatory approval for Zalviso, that fact that FDA may dispute or interpret differently positive clinical results obtained to date from the pivotal Phase 3 SAP301 ambulatory surgery study of ARX-04; its ability to obtain sufficient financing to receive regulatory approval for and commercialize Zalviso in the United States and Europe, and complete Phase 3 clinical development of ARX-04; the success, cost and timing of all product development activities and clinical trials, including the planned Phase 3 ARX-04 emergency room trial; the accuracy of AcelRx's estimates regarding expenses, capital requirements and use of proceeds from the sale of royalty and milestone payments to PDL BioPharma; and other risks detailed in the "Risk Factors" and elsewhere in AcelRx's U.S. Securities and Exchange Commission filings and reports, including its Quarterly Report on Form 10-Q filed with the SEC on August 4, 2015. AcelRx undertakes no duty or obligation to update any forward-looking statements contained in this release as a result of new information, future events or changes in its expectations.

AcelRx Pharmaceuticals, Inc.

Logo - http://photos.prnewswire.com/prnh/20130226/MM67303LOGO

To view the original version on PR Newswire, visit:http://www.prnewswire.com/news-releases/acelrx-pharmaceuticals-receives-65-million-from-the-partial-sale-of-zalviso-european-royalties-and-commercial-milestones-to-pdl-biopharma-300146003.html

SOURCE AcelRx Pharmaceuticals, Inc.

Timothy E. Morris, Chief Financial Officer, 650.216.3511, tmorris@acelrx.com, Brian Korb, The Trout Group LLC, 646.378.2923, bkorb@troutgroup.com

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EXHIBIT C

PURCHASER ACCOUNT

Bank Name:	[*]
ABA Number:	[*]
Swift:	[*]
Account Name:	[*]
Account Number:	[*]
Attention:	[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT D

SELLER ACCOUNT

Bank Name:	[*]
ABA Number:	[*]
Account Number:	[*]
Account Name:	[*]
Attention:	[*]
ARPI Tax ID #:	[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT E-1

FINANCING STATEMENT

[UCC-1 Financing Statement]

**Exhibit A to UCC-1 Financing Statement with ARPI LLC,
as Debtor/Seller and PDL BioPharma, Inc., as Secured Party/Buyer**

Item 4: Description of Collateral

All of Debtor's right, title and interest in, to and under the License Agreement to receive the Royalties Interest (up to the Capped Payment Amount), whether now owned or existing or hereafter acquired or arising and wherever located, all "accounts" (within the meaning of the UCC) relating thereto, the other rights and assets included in the Purchased Interest, and any and all additions and accessions to any of the foregoing, all improvements thereto, all substitutions and replacements therefor and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts).

The following terms shall have the following meanings, with such meanings being equally applicable to both the singular and plural forms of the terms defined:

"AcelRx" means AcelRx Pharmaceuticals, Inc., a Delaware corporation.

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means 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, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

"Capital Securities" means, with respect to any Person, all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) of such Person's capital, whether now outstanding or issued after the Closing Date, including common shares, ordinary shares, preferred shares, membership interests or share capital in a limited liability company or other Person, limited or general partnership interests in a partnership, beneficial interests in trusts or any other equivalent of such ownership interest or any options, warrants and other rights to acquire such shares or interests, including rights to allocations and distributions, dividends, redemption payments and liquidation payments.

"Capped Payment Amount" means $195,000,000.

"Closing Date" means September 18, 2015.

"Excluded Liabilities and Obligations" has the meaning set forth in Section 2.3 of the SPSA.

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"Excluded Payments" means all amounts due or paid to AcelRx or any of its Affiliates other than the Royalties, including all amounts due or paid to AcelRx or any of its Affiliates pursuant to Section 7.1, Section 7.2(a), Section 7.2(b) (other than the first four milestone payments thereunder), Section 7.2(c), or Section 7.4 of the License Agreement.

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

"First Commercial Sale" means "First Commercial Sale" as defined in Section 1.51 of the License Agreement.

"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any country or jurisdiction.

"Grünenthal" means Grünenthal GmbH, a German company.

"Initial Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between AcelRx and the Debtor.

"License Agreement" means that certain Collaboration and License Agreement, dated as of December 16, 2013, between Licensor and the Licensee, as amended from time to time (including by the Licensee Consent and, for amendments entered into following the Closing Date, amended in a manner consistent with the terms of the PSA and the SPSA).

"Licensee" means Grünenthal, in its capacity as licensee under the License Agreement.

"Licensee Consent" means that certain letter agreement, dated July 17, 2015, by and between the Licensor and the Licensee, regarding, among other things, the transfer of the Purchased Assets by the Licensor to the Debtor and the further transfer of the Purchased Interest by the Debtor to the Secured Party.

"Licensee Instruction" means the irrevocable notice and direction to the Licensee in the form set forth in Exhibit B to the PSA.

"Licensor" means AcelRx, in its capacity as licensor under the License Agreement.

"Licensor Retained Amounts" means in the aggregate (i) the portion of Royalties payable or paid by the Licensee from time to time, and any interest on late payments thereof, that is in each case in excess of the amounts constituting the Royalties Interest (including interest on late payments thereof), (ii) without duplication of any of the amounts described in clause (i), any amount deemed Licensor Retained Amounts under the third sentence of Section 5.4(b) of the PSA or the third sentence of Section 5.4(b) of the SPSA, and (iii) all payments that constitute Excluded Payments.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"Manufacture and Supply Agreement" means the Manufacture and Supply Agreement, dated as of December 16, 2013, between AcelRx and Grünenthal, as amended from time to time.

"New Arrangement" has the meaning set forth in Section 5.6(a) of the PSA.

"New License Agreement" has the meaning set forth in Section 5.6(a) of the PSA.

"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any intellectual property rights that are Patents.

"Patents" means "Patents" as defined in Section 1.91 of the License Agreement.

"Payment Rights" means the right to receive an amount of Royalties equal to the Royalties Interest, subject to the Capped Payment Amount, and the right to receive interest payable or paid pursuant to the License Agreement on late payments of amounts constituting the Royalties Interest (with such amounts in respect of which interest is paid not exceeding the Capped Payment Amount).

"Permitted Set-off" means any Set-off against royalties or other amounts payable to Licensor by Licensee under the License Agreement that is expressly permitted under Sections 7.3(b), 7.3(c) or 7.3(d) of the License Agreement.

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

"PSA" means that certain Purchase and Sale Agreement, dated as of September 18, 2015, between AcelRx and the Debtor.

"Purchased Interest" has the meaning set forth in Section 2.1 of the SPSA.

"Purchaser Portion" means (a) with respect to (i) all Royalties other than the first four milestone payments under Section 7.2(b) of the License Agreement and (ii) all other related amounts included in the definition of "Royalties" with respect to the Royalties described in clause (i), seventy-five percent (75%) of a specified amount that is payable or has been paid, and (b) solely with respect to Royalties that consist of the first four milestone payments under Section 7.2(b) of the License Agreement and all other related amounts included in the definition of "Royalties" with respect to such Royalties, eighty percent (80%) of a specified amount that is payable or has been paid.

"Royalties" has the meaning set forth in Section 1.1 of the SPSA.

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"Royalties Commencement Date" means the date after the Closing Date of the First Commercial Sale in the first country in the Territory in which such First Commercial Sale occurs.

"Royalties Interest" means the Purchaser Portion of Royalties.

"Royalty Reduction" has the meaning set forth in the PSA.

"Royalty Term" means the period commencing on the Royalties Commencement Date, and ending on the last day of the last to expire "Royalty Term" as defined in Section 7.3(e) of the License Agreement.

"SACA" means the Security and Control Agreement, dated as of the Closing Date, among the Debtor, the Secured Party, the servicer thereunder and U.S. Bank National Association as initial collateral agent and initial depositary agent thereunder.

"Servicing Agreement" means that certain Servicing Agreement, dated September 18, 2015, among AcelRx, as the initial servicer, the Debtor and the Secured Party.

"Set-off" means any set-off, off-set, charge, reduction or similar deduction; provided, however, that "Set-off" shall not include any Royalty Reduction.

"SPSA" means the Subsequent Purchase and Sale Agreement, dated as of September 18, 2015, between the Debtor and the Secured Party.

"Subsequent Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Debtor and the Secured Party.

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, sales, use, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

"Territory" means the "Territory" as defined under Section 1.111 of the License Agreement, but including Australia only for so long as Australia remains part of the Territory pursuant to the License Agreement.

"Transaction Documents" means the PSA, the Initial Bill of Sale, the Licensee Instruction, the SPSA, the Subsequent Bill of Sale, the Servicing Agreement and the SACA.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided, that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(d) of the SPSA is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of Delaware, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of the SPSA and any financing statement relating to such perfection or effect of perfection or non-perfection.

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"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

It is intended by Debtor and Secured Party that all right, title and interest of the Debtor in and to the Purchased Interest is being conveyed on an absolute basis to Secured Party under the transactions between such parties, and the use of the terms "Debtor," "Secured Party" and "Collateral" shall not be construed to evidence a contrary intent, nor shall this Financing Statement constitute an admission or acknowledgement by Debtor or Secured Party or any other Person that the transactions between Debtor and Secured Party create only a security interest in the foregoing property described as the Purchased Interest.

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EXHIBIT E-2

FINANCING STATEMENT

[UCC-1 Financing Statement]

**Exhibit A to UCC-1 Financing Statement with ARPI LLC,
as Debtor and PDL BioPharma, Inc., as Secured Party**

Item 4: Description of Collateral

All of Debtor's right, title and interest in, to and under the License Agreement to receive the Royalties Interest (up to the Capped Payment Amount), whether now owned or existing or hereafter acquired or arising and wherever located, all "accounts" (within the meaning of the UCC) relating thereto, the other rights and assets included in the Purchased Interest, and any and all additions and accessions to any of the foregoing, all improvements thereto, all substitutions and replacements therefor and any and all products and proceeds thereof; provided, that the foregoing shall in all cases exclude (and the Secured Party shall have no interest in) any and all Licensor Retained Amounts and any proceeds or products thereof.

The following terms shall have the following meanings, with such meanings being equally applicable to both the singular and plural forms of the terms defined:

"AcelRx" means AcelRx Pharmaceuticals, Inc., a Delaware corporation.

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means 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, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

"Capital Securities" means, with respect to any Person, all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) of such Person's capital, whether now outstanding or issued after the Closing Date, including common shares, ordinary shares, preferred shares, membership interests or share capital in a limited liability company or other Person, limited or general partnership interests in a partnership, beneficial interests in trusts or any other equivalent of such ownership interest or any options, warrants and other rights to acquire such shares or interests, including rights to allocations and distributions, dividends, redemption payments and liquidation payments.

"Capped Payment Amount" means $195,000,000.

"Closing Date" means September 18, 2015.

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"Excluded Liabilities and Obligations" has the meaning set forth in Section 2.3 of the SPSA.

"Excluded Payments" means all amounts due or paid to AcelRx or any of its Affiliates other than the Royalties, including all amounts due or paid to AcelRx or any of its Affiliates pursuant to Section 7.1, Section 7.2(a), Section 7.2(b) (other than the first four milestone payments thereunder), Section 7.2(c), or Section 7.4 of the License Agreement.

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

"First Commercial Sale" means "First Commercial Sale" as defined in Section 1.51 of the License Agreement.

"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any country or jurisdiction.

"Grünenthal" means Grünenthal GmbH, a German company.

"Initial Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between AcelRx and the Debtor.

"License Agreement" means that certain Collaboration and License Agreement, dated as of December 16, 2013, between Licensor and the Licensee, as amended from time to time (including by the Licensee Consent and, for amendments entered into following the Closing Date, amended in a manner consistent with the terms of the PSA and the SPSA).

"Licensee" means Grünenthal, in its capacity as licensee under the License Agreement.

"Licensee Consent" means that certain letter agreement, dated July 17, 2015, by and between the Licensor and the Licensee, regarding, among other things, the transfer of the Purchased Assets by the Licensor to the Debtor and the further transfer of the Purchased Interest by the Debtor to the Secured Party.

"Licensee Instruction" means the irrevocable notice and direction to the Licensee in the form set forth in Exhibit B to the PSA.

"Licensor" means AcelRx, in its capacity as licensor under the License Agreement.

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"Licensor Retained Amounts" means in the aggregate (i) the portion of Royalties payable or paid by the Licensee from time to time, and any interest on late payments thereof, that is in each case in excess of the amounts constituting the Royalties Interest (including interest on late payments thereof), (ii) without duplication of any of the amounts described in clause (i), any amount deemed Licensor Retained Amounts under the third sentence of Section 5.4(b) of the PSA or the third sentence of Section 5.4(b) of the SPSA, and (iii) all payments that constitute Excluded Payments.

"Manufacture and Supply Agreement" means the Manufacture and Supply Agreement, dated as of December 16, 2013, between AcelRx and Grünenthal, as amended from time to time.

"New Arrangement" has the meaning set forth in Section 5.6(a) of the PSA.

"New License Agreement" has the meaning set forth in Section 5.6(a) of the PSA.

"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any intellectual property rights that are Patents.

"Patents" means "Patents" as defined in Section 1.91 of the License Agreement.

"Payment Rights" means the right to receive an amount of Royalties equal to the Royalties Interest, subject to the Capped Payment Amount, and the right to receive interest payable or paid pursuant to the License Agreement on late payments of amounts constituting the Royalties Interest (with such amounts in respect of which interest is paid not exceeding the Capped Payment Amount).

"Permitted Set-off" means any Set-off against royalties or other amounts payable to Licensor by Licensee under the License Agreement that is expressly permitted under Sections 7.3(b), 7.3(c) or 7.3(d) of the License Agreement.

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

"PSA" means that certain Purchase and Sale Agreement, dated as of September 18, 2015, between AcelRx and the Debtor.

"Purchased Interest" has the meaning set forth in Section 2.1 of the SPSA.

"Purchaser Portion" means (a) with respect to (i) all Royalties other than the first four milestone payments under Section 7.2(b) of the License Agreement and (ii) all other related amounts included in the definition of "Royalties" with respect to the Royalties described in clause (i), seventy-five percent (75%) of a specified amount that is payable or has been paid, and (b) solely with respect to Royalties that consist of the first four milestone payments under Section 7.2(b) of the License Agreement and all other related amounts included in the definition of "Royalties" with respect to such Royalties, eighty percent (80%) of a specified amount that is payable or has been paid.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"Royalties" has the meaning set forth in Section 1.1 of the SPSA.

"Royalties Commencement Date" means the date after the Closing Date of the First Commercial Sale in the first country in the Territory in which such First Commercial Sale occurs.

"Royalties Interest" means the Purchaser Portion of Royalties.

"Royalty Reduction" has the meaning set forth in the PSA.

"Royalty Term" means the period commencing on the Royalties Commencement Date, and ending on the last day of the last to expire "Royalty Term" as defined in Section 7.3(e) of the License Agreement.

"SACA" means the Security and Control Agreement, dated as of the Closing Date, among the Debtor, the Secured Party, the servicer thereunder and U.S. Bank National Association as initial collateral agent and initial depositary agent thereunder.

"Servicing Agreement" means that certain Servicing Agreement, dated September 18, 2015, among AcelRx, as the initial servicer, the Debtor and the Secured Party.

"Set-off" means any set-off, off-set, charge, reduction or similar deduction; provided, however, that "Set-off" shall not include any Royalty Reduction.

"SPSA" means the Subsequent Purchase and Sale Agreement, dated September 18, 2015, between the Debtor and the Secured Party.

"Subsequent Bill of Sale" means that certain Bill of Sale, dated as of September 18, 2015, between the Debtor and the Secured Party.

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, sales, use, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

"Territory" means the "Territory" as defined under Section 1.111 of the License Agreement, but including Australia only for so long as Australia remains part of the Territory pursuant to the License Agreement.

"Transaction Documents" means the PSA, the Initial Bill of Sale, the Licensee Instruction, the SPSA, the Subsequent Bill of Sale, the Servicing Agreement and the SACA.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of Delaware; provided, that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(d) of the SPSA is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of Delaware, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of the SPSA and any financing statement relating to such perfection or effect of perfection or non-perfection.

"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

This Financing Statement is being filed for precautionary purposes and shall not constitute an admission or acknowledgement by Debtor or Secured Party, or any other person, that the parties to the SPSA and related documents intend to enter into any transaction other than a true and absolute sale of the property described as the Purchased Interest herein. In the event that, contrary to the intentions of the parties, the transfer contemplated by the SPSA and related documents is held not to be a sale, this precautionary Financing Statement is filed to perfect a first priority continuing security interest in and to all of the Debtor's right, title and interest in, to and under the Purchased Interest, and any and all additions and accessions to any of the foregoing, all improvements thereto, all substitutions and replacements therefor and any and all products and proceeds thereof (but excluding, in all cases, any and all Licensor Retained Amounts), and, in such event, the SPSA shall constitute a security agreement.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

EXHIBIT F

FORM OF OPINION

EXHIBIT F

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

SCHEDULE 1.1

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

Exhibit 10.8

CONSENT AND AMENDMENT NO. 2
TO
AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT

This Consent And Amendment No. 2 to Amended and Restated Loan and Security Agreement (this "Amendment") is dated as of September 17, 2015 (the "Second Amendment Date") and is entered into by and among ACELRX PHARMACEUTICALS, INC. ("AcelRx"), a Delaware corporation, and each of its subsidiaries (hereinafter collectively referred to as the "Borrower"), HERCULES TECHNOLOGY II, L.P., a Delaware limited partnership, and HERCULES CAPITAL FUNDING TRUST 2014-1, a statutory trust created under the laws of Delaware (collectively, "Lender"). Capitalized terms used herein without definition shall have the same meanings given them in the Loan Agreement (as defined below).

Recitals

A. Borrower and Lender have entered into that certain Amended and Restated Loan and Security Agreement dated as of December 16, 2013 and amended as of September 24, 2014 (as may be further amended, restated, or otherwise modified, the "Loan Agreement"), pursuant to which Lender has agreed to extend and make available to Borrower certain advances of money.

B. Borrower and Lender have agreed to amend the Loan Agreement and Lender has agreed to release the security interests in and Liens on the Excluded Assets (as defined below) granted to Lender pursuant to the Loan Agreement, in each case upon the terms and conditions more fully set forth herein.

Agreement

NOW, THEREFORE, in consideration of the foregoing Recitals and intending to be legally bound, the parties hereto agree as follows:

1. Consent. Subject to the satisfaction of the conditions precedent set forth in Section 6 hereof, as of the Second Amendment Date, Lender consents to (i) the release of the security interests in and Liens on the Excluded Assets heretofore granted to Lender pursuant to the Loan Agreement and (ii) the filing of UCC financing statements and such other certificates, instruments and documents that are necessary or desirable for the purpose of evidencing the release of such security interests in and Liens on the Excluded Assets.

2. Amendments.

2.1 Section 1.1 Definitions.

(a) New Definitions. The following definitions are hereby inserted alphabetically into Section 1.1 of the Loan Agreement:

"AcelRx Intellectual Property Rights" has the meaning set forth in the PSA.

"Amortization Date" means April 1, 2016, but October 1, 2016 if Borrower achieves the Interest Only Extension Conditions.

"Company Collection Account" has the meaning set forth in the PSA.

"Company Distribution Account" has the meaning set forth in the PSA.

"Excluded Assets" means the Licensed Product, the AcelRx Intellectual Property Rights, the Purchased Assets, the Purchased Interest, the Purchaser Portion, the Licensor Retained Amounts, the Payment Rights, the Royalties, the Grunenthal Agreements, the Company Collection Account and the Company Distribution Account and all money, deposits, investment property, and other property now or at any time hereafter therein, and any funds deposited therein, and any interest thereon, any and all other rights, duties and obligations of Borrower under the Transaction Documents and the Grunenthal Agreements, and in each case all Proceeds of each of the foregoing and all additions and accessions to, all improvements to, substitutions and replacements for, and rents, profits and products of each of the foregoing, so long as the PSA and SPSA are in effect.

"Grunenthal License" means collectively that certain Collaboration and License Agreement entered into as of December 16, 2013 between Borrower and Grunenthal GmbH, as amended, modified, supplemented or restated from time to time, including by that certain First Amendment to the Collaboration and License Agreement effective as of July 17, 2015.

"Grunenthal Manufacture and Supply Agreement" means collectively that certain Manufacture and Supply Agreement entered into as of December 16, 2013 between Borrower and Grunenthal GmbH, as amended, modified, supplemented or restated from time to time, including by that certain First Amendment to the Manufacture and Supply Agreement effective as of July 17, 2015.

"Grunenthal Agreements" means collectively the Grunenthal License and the Grunenthal Manufacture and Supply Agreement.

"Interest Only Extension Conditions" means satisfaction of each of the following events on or before April 1, 2016: (a) no default or Event of Default shall have occurred and be continuing; (b) Borrower achieves favorable results in the ARX-04 phase 3 study (SAP-301), as measured by the primary and second endpoints in the SAP-301 study which are required to meet the final efficacy requirements for an NDA filing with the U.S. Food and Drug Administration; and (c) Grunenthal GmbH receives European Union approval of its marketing authorization application for Zalviso.

"Licensed Product" has the meaning set forth in the PSA.

"Licensor Retained Amounts" has the meaning set forth in the PSA.

"New License Agreement" has the meaning set forth in the PSA.

"Non-Renewable Facility Fee" means $204,663.25, which fee is due to Collateral Agent on or prior to the Second Amendment Date, and shall be deemed fully earned on such date regardless of the early termination of this Agreement.

"Payment Rights" has the meaning set forth in the PSA.

"PDL" means PDL BioPharma, Inc.

"PSA" means that certain Purchase and Sale Agreement between Borrower, as seller, and ARPI LLC, as purchaser, dated as of September 17, 2015, as amended, modified, supplemented or restated from time to time.

"Purchased Assets" has the meaning set forth in the PSA.

"Purchased Interest" has the meaning set forth in the SPSA.

"Purchaser Portion" has the meaning set forth in the PSA.

"Royalties" has the meaning set forth in the PSA.

"Servicing Agreement" means that certain Servicing Agreement by and among ARPI LLC, PDL and AcelRx, dated as of September 17, 2015, as amended, modified, supplemented or restated from time to time.

"Servicing Files" has the meaning set forth in the Servicing Agreement.

"SPSA" means that certain Subsequent Purchase and Sale Agreement between ARPI LLC, as seller, and PDL, as purchaser, dated as of September 17, 2015, as amended, modified, supplemented or restated from time to time.

"Transaction Documents" has the meaning set forth in the PSA.

"Warrant Amendments" means those certain amendments to the Warrants being made concurrently herewith.

(b) Amended Definitions. The following definitions in Section 1.1 of the Loan Agreement are hereby amended and restated in their entirety as follows:

"Intellectual Property" means all of Borrower's Copyrights; Trademarks; Patents; Licenses; trade secrets and inventions; mask works; Borrower's applications therefor and reissues, extensions, or renewals thereof; and Borrower's goodwill associated with any of the foregoing, together with Borrower's rights to sue for past, present and future infringement of Intellectual Property and the goodwill associated therewith, but specifically excluding any such property licensed to Grunenthal GmbH pursuant to the Grunenthal Agreements or to any other Person pursuant to a New License Agreement for so long as the PSA and the SPSA remain in effect.

"Permitted Indebtedness" means: (i) Indebtedness of Borrower in favor of Lender arising under this Agreement or any other Loan Document; (ii) Indebtedness existing on the Closing Date which is disclosed in Schedule 1A; (iii) Indebtedness of up to $200,000 outstanding at any time secured by a lien described in clause (vii) of the defined term "Permitted Liens," provided such Indebtedness does not exceed the lesser of the cost or fair market value of the Equipment financed with such Indebtedness; (iv) Indebtedness to trade creditors incurred in the ordinary course of business, including Indebtedness incurred in the ordinary course of business with corporate credit cards; (v) Indebtedness that also constitutes a Permitted Investment; (vi) Subordinated Indebtedness; (vii) reimbursement obligations in connection with letters of credit that are secured by cash or cash equivalents and issued on behalf of the Borrower or a Subsidiary thereof in an amount not to exceed $200,000 at any time outstanding, (viii) obligations of Borrower under the Transaction Documents, (ix) other Indebtedness in an amount not to exceed $500,000 at any time outstanding, and (x) extensions, refinancings and renewals of any items of Permitted Indebtedness, provided that the principal amount is not increased or the terms modified to impose materially more burdensome terms upon Borrower or its Subsidiary, as the case may be.

"Permitted Liens" means any and all of the following: (i) Liens in favor of Lender; (ii) Liens existing on the Closing Date which are disclosed in Schedule 1C; (iii) Liens for taxes, fees, assessments or other governmental charges or levies, either not delinquent or being contested in good faith by appropriate proceedings; provided, that Borrower maintains adequate reserves therefor in accordance with GAAP to the extent required thereby; (iv) Liens securing claims or demands of materialmen, artisans, mechanics, carriers, warehousemen, landlords and other like Persons arising in the ordinary course of Borrower's business and imposed without action of such parties; provided, that the payment thereof is not overdue; (v) Liens arising from judgments, decrees or attachments in circumstances which do not constitute an Event of Default hereunder; (vi) the following deposits, to the extent made in the ordinary course of business: deposits under worker's compensation, unemployment insurance, social security and other similar laws, or to secure the performance of bids, tenders or contracts (other than for the repayment of borrowed money) or to secure indemnity, performance or other similar bonds for the performance of bids, tenders or contracts (other than for the repayment of borrowed money) or to secure statutory obligations (other than liens arising under ERISA or environmental liens) or surety or appeal bonds, or to secure indemnity, performance or other similar bonds; (vii) Liens on Equipment or software or other intellectual property constituting purchase money liens and liens in connection with capital leases securing Indebtedness permitted in clause (iii) of "Permitted Indebtedness"; (viii) Liens incurred in connection with Subordinated Indebtedness; (ix) leasehold interests in leases or subleases and licenses granted in the ordinary course of business and not interfering in any material respect with the business of the licensor; (x) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of custom duties that are promptly paid on or before the date they become due; (xi) Liens on insurance proceeds securing the payment of financed insurance premiums that are promptly paid on or before the date they become due (provided that such Liens extend only to such insurance proceeds and not to any other property or assets); (xii) statutory and common law rights of set-off and other similar rights as to deposits of cash and securities in favor of banks, other depository institutions and brokerage firms; (xiii) easements, zoning restrictions, rights-of-way and similar encumbrances on real property imposed by law or arising in the ordinary course of business so long as they do not materially impair the value or marketability of the related property; (xiv) Liens on cash or cash equivalents securing obligations permitted under clause (vii) of the definition of Permitted Indebtedness; (xv) Liens on Excluded Assets, for so long as the PSA and the SPSA are in effect; (xvi) Liens incurred in connection with the extension, renewal or refinancing of the indebtedness secured by Liens of the type described in clauses (i) through (xi) above; provided, that any extension, renewal or replacement Lien shall be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness being extended, renewed or refinanced (as may have been reduced by any payment thereon) does not increase.

"Permitted Transfers" means (i) sales of Inventory in the normal course of business, (ii) non-exclusive licenses and similar arrangements for the use of Intellectual Property in the ordinary course of business and licenses that could not result in a legal transfer of title of the licensed property but that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discrete geographical areas outside of the United States in the ordinary course of business, (iii) dispositions of worn-out, obsolete or surplus Equipment at fair market value in the ordinary course of business, (iv) dispositions expressly permitted under Section 7.7, 7.8 or 7.10 hereof, (v) dispositions arising from the abandonment of fixtures and other similar tenant improvements in connection with office relocations, (vi) transfers of Excluded Assets pursuant to the Grunenthal Agreements, any New License Agreement, the PSA, the SPSA and the Servicing Agreement, including without limitation transfers of Royalties, Payment Rights, Purchased Assets, the Purchaser Portion and the Purchased Interest, in each case for so long as the PSA and the SPSA are in effect; and (vii) other Transfers of assets having a fair market value of not more than $250,000 in the aggregate in any fiscal year.

"Receivables" means (i) all of Borrower's Accounts, Instruments, Documents, Chattel Paper, Supporting Obligations, letters of credit, proceeds of any letter of credit, and Letter of Credit Rights, and (ii) all customer lists, software, and business records related thereto, but specifically excluding with respect to clauses (i) and (ii) any such property received under the Grunenthal Agreements or any New License Agreement, as applicable, and any Servicing Files, in each case for so long as the PSA and the SPSA are in effect.

"Subsidiary" means an entity, whether corporate, partnership, limited liability company, joint venture or otherwise, in which Borrower owns or controls 50% or more of the outstanding voting securities, including each entity listed on Schedule 1 hereto, but specifically excluding ARPI LLC.

"Term Loan Maturity Date" means October 1, 2017.

"Warrant" means the warrants entered into in connection with the Loan, as thereafter amended from time to time, including without limitation, by the terms of the Warrant Amendments.

3. Amendments.

3.1 Section 2.2(d). Section 2.2(d) is hereby amended and restated in its entirety as follows:

2.2(d) Payment. Borrower will pay interest on each Term Loan Advance on the first day of each month, beginning the month after the Second Amendment Date. Borrower shall repay the aggregate Term Loan principal balance that is outstanding on the day immediately preceding the Amortization Date, in equal monthly installments of principal and interest (mortgage style) beginning on the Amortization Date and continuing on the first business day of each month thereafter until the Secured Obligations (other than inchoate indemnity obligations) are repaid. The entire Term Loan principal balance and all accrued but unpaid interest hereunder, shall be due and payable on the Term Loan Maturity Date. Borrower shall make all payments under this Agreement without setoff, recoupment or deduction and regardless of any counterclaim or defense. Except to the extent Borrower pays any regularly scheduled installments of principal and/or optional prepayments of principal in Common stock in accordance with, and subject to the limitations set forth in, Section 2.2(e), Lender will initiate debit entries to the Borrower's account as authorized on the ACH Authorization (i) on each payment date of all periodic obligations payable to Lender under each Note or Term Loan Advance and (ii) out-of-pocket legal fees and costs incurred by Collateral Agent or Lender in connection with Section 11.11 of this Agreement.

3.2 Section 3.1. Section 3.1 is hereby amended and restated in its entirety as follows:

3.1 As security for the prompt, complete and indefeasible payment when due (whether on the payment dates or otherwise) of all the Secured Obligations, Borrower grants to Collateral Agent and Lender a security interest in all of Borrower's personal property now owned or hereafter acquired, including the following (collectively, the "Collateral"): (a) Receivables; (b) Equipment; (c) Fixtures; (d) General Intangibles (other than Intellectual Property); (e) Inventory; (f) Investment Property (but excluding thirty-five percent (35%) of the capital stock of any foreign Subsidiary that constitutes a Permitted Investment); (g) Deposit Accounts; (h) Cash; (i) Goods; and other tangible and intangible personal property of Borrower whether now or hereafter owned or existing, leased, consigned by or to, or acquired by, Borrower and wherever located; and, to the extent not otherwise included, all Proceeds of each of the foregoing and all accessions to, substitutions and replacements for, and rents, profits and products of each of the foregoing; provided, however, that the Collateral shall include all Accounts and General Intangibles that consist of rights to payment and proceeds from the sale, licensing or disposition of all or any part, or rights in, the Intellectual Property (the "Rights to Payment"). Notwithstanding the foregoing, if a judicial authority (including a U.S. Bankruptcy Court) holds that a security interest in the underlying Intellectual Property is necessary to have a security interest in the Rights to Payment, then the Collateral shall automatically, and effective as of the date of this Agreement, include the Intellectual Property to the extent necessary to permit perfection of Lender's security interest in the Rights to Payment. Upon payment in full in cash of the Secured Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) and at such time as this Agreement has been terminated, the Collateral Agent and Lender shall, at Borrower's sole cost and expense, release their Liens in the Collateral and all rights therein shall revert to Borrower. Notwithstanding anything else set forth herein, the Collateral shall specifically exclude the Excluded Assets for so long as the PSA and SPSA remain in effect, but upon the termination or expiration of the PSA and the SPSA, the Excluded Assets (to the extent they do not consist of Intellectual Property) shall automatically be subject to the security interest granted in favor of Collateral Agent and Lender hereunder and become part of the Collateral.

3.3 Section 7.6. Section 7.6 is hereby amended and restated in its entirety to read as follows:

7.6 Collateral. Borrower shall at all times keep the Collateral, the Intellectual Property and all other property and assets used in Borrower's business or in which Borrower now or hereafter holds any interest free and clear from any legal process or Liens whatsoever (except for Permitted Liens), and shall give Lender prompt written notice of any legal process affecting the Collateral, the Intellectual Property, such other property and assets, or any Liens thereon. Borrower shall cause its Subsidiaries to protect and defend such Subsidiary's title to its assets from and against all Persons claiming any interest adverse to such Subsidiary, and Borrower shall cause its Subsidiaries at all times to keep such Subsidiary's property and assets free and clear from any legal process or Liens whatsoever (except for Permitted Liens), and shall give Lender prompt written notice of any legal process affecting such Subsidiary's assets. Except with respect to (i) specific property encumbered to secure payment of particular Indebtedness incurred to finance the acquisition of such property, (ii) Liens on Excluded Assets described in subsection (xv) of the definition of Permitted Liens, and (iii) restrictions by reason of customary provisions restricting assignment, subletting or other transfers contained in leases, licenses and similar agreements entered into in the ordinary course of business (provided that such restrictions are limited to the property or assets secured by such Liens, Excluded Assets or the property or assets subject to such leases, licenses or similar agreements, as the case may be), Borrower shall not agree with any Person other than Lender not to encumber its property.

3.4 Section 11.13. Section 11.13 is hereby amended and restated in its entirety to read as follows:

11.13 Assignment of Rights. Borrower acknowledges and understands that Lender may sell and assign all or part of its interest hereunder and under the Note(s) and Loan Documents to any person or entity (an "Assignee"), provided, however, that any transfer by Lender of the Note shall be subject to compliance with applicable federal and state securities laws. After such assignment the term "Lender" as used in the Loan Documents shall mean and include such Assignee, and such Assignee shall be vested with all rights, powers and remedies of Lender hereunder with respect to the interest so assigned; but with respect to any such interest not so transferred, Lender shall retain all rights, powers and remedies hereby given. No such assignment by Lender shall relieve Borrower of any of its obligations hereunder. Lender agrees that in the event of any transfer by it of the Note(s), it will endorse thereon a notation as to the portion of the principal of the Note(s), which shall have been paid at the time of such transfer and as to the date to which interest shall have been last paid thereon.

4. Borrower's Representations And Warranties. Borrower represents and warrants that:

4.1 Immediately upon giving effect to this Amendment (i) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (ii) no Event of Default has occurred and is continuing with respect to which Borrower has not been notified in writing by Lender.

4.2 Borrower has the corporate power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment.

4.3 The certificate of incorporation, bylaws and other organizational documents of Borrower delivered to Lender on the Closing Date remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect.

4.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized by all necessary corporate action on the part of Borrower.

4.5 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against it in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights; and

4.6 As of the date hereof, it has no defenses against the obligations to pay any amounts under the Obligations. Borrower acknowledges that Lender has acted in good faith and has conducted in a commercially reasonable manner its relationships with Borrower in connection with this Amendment and in connection with the Loan Documents.

Borrower understands and acknowledges that Lender is entering into this Amendment in reliance upon, and in partial consideration for, the above representations and warranties, and agrees that such reliance is reasonable and appropriate.

5. Limitation. The amendments set forth in this Amendment shall be limited precisely as written and shall not be deemed (a) to be a waiver or modification of any other term or condition of the Loan Agreement or of any other instrument or agreement referred to therein or to prejudice any right or remedy which Lender may now have or may have in the future under or in connection with the Loan Agreement (as amended hereby) or any instrument or agreement referred to therein; or (b) to be a consent to any future amendment or modification or waiver to any instrument or agreement the execution and delivery of which is consented to hereby, or to any waiver of any of the provisions thereof. Except as expressly amended hereby, the Loan Agreement shall continue in full force and effect.

6. Effectiveness. This Amendment shall become effective upon the satisfaction of all the following conditions precedent:

6.1 Amendments. Borrower and Lender shall have duly executed and delivered this Amendment to Lender, together with the Warrant Amendments and a certified copy of resolutions of Borrower's board of directors evidencing the approval of the Second Amendment and the Warrant Amendment and the transactions evidenced thereby.

6.2 Payment of Non-Renewable Facility Fee. Borrower shall have paid to Collateral Agent on behalf of Lenders the Non-Renewable Facility Fee.

6 . 3 Payment of Lender Expenses. Borrower shall have paid all Lender Expenses (including all reasonable attorneys' fees and reasonable expenses) incurred through the date of this Amendment.

6.4 Receipt of Purchase Price under PSA. Borrower shall have received gross proceeds of $65,000,000 pursuant to Section 2.2 of the PSA, and such funds shall be held in an account of Borrower that is subject to an Account Control Agreement.

7. Counterparts. This Amendment may be signed in any number of counterparts, and by different parties hereto in separate counterparts, with the same effect as if the signatures to each such counterpart were upon a single instrument. All counterparts shall be deemed an original of this Amendment. This Amendment may be executed by facsimile, portable document format (.pdf) or similar technology signature, and such signature shall constitute an original for all purposes.

8 . Incorporation By Reference. The provisions of Section 11 of the Agreement shall be deemed incorporated herein by reference, *mutatis mutandis*.

In Witness Whereof, the parties have duly authorized and caused this Amendment to be executed as of the date first written above.

BORROWER:

ACELRX PHARMACEUTICALS, INC.

Signature: __/s/ Timothy E. Morris___

Print Name: __Timothy E. Morris_____

Title: __Chief Financial Officer__

Accepted in Palo Alto, California:

LENDER:

HERCULES CAPITAL FUNDING TRUST 2014-1

Signature: __/s/ Ben Bang_____
Ben Bang, Associate General Counsel

HERCULES TECHNOLOGY II, L.P., a Delaware limited partnership

By: Hercules Technology SBIC Management, LLC, its General Partner

By: Hercules Technology Growth Capital, Inc., its Manager

By: ____/s/ Ben Bang_____
Ben Bang, Associate General Counsel

Exhibit 31.1

CERTIFICATIONS

I, Howard B. Rosen, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AcelRx Pharmaceuticals, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: November 2, 2015

/s/ Howard B. Rosen
Howard B. Rosen
Interim Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, Timothy E. Morris, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AcelRx Pharmaceuticals, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: November 2, 2015

By: /s/ Timothy E. Morris
Timothy E. Morris
Chief Financial Officer and Head of Business Development
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION

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), Howard B. Rosen, interim Chief Executive Officer of AcelRx Pharmaceuticals, Inc. (the "Company"), and Timothy E. Morris, Chief Financial Officer of the Company, each hereby certifies that, to the best of his or her knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended September 30, 2015, 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 2nd day of November, 2015.

/s/ Howard B. Rosen
Howard B. Rosen
Interim Chief Executive Officer

/s/ Timothy E. Morris
Timothy E. Morris
Chief Financial Officer and Head of Business Development

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 AcelRx Pharmaceuticals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.