Mast Therapeutics, Inc.
Form 424B3
November 04, 2013
Table of Contents

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-188870

Prospectus Supplement No. 5

(To prospectus dated June 14, 2013)

Warrants to Purchase up to 28,097,500 Shares of Common Stock

This Prospectus Supplement No. 5 (the Prospectus Supplement) supplements our Prospectus dated June 14, 2013 and Prospectus Supplements No. 1, 2, 3 and 4 dated June 26, 2013, August 5, 2013, August 9, 2013 and October 30, 2013, respectively (together, the Prospectus), relating to the issuance of up to 28,097,500 shares of our common stock issuable upon exercise of outstanding warrants issued in connection with our registered offering which closed on June 19, 2013. We cannot predict when or if the warrants will be exercised, and it is possible that the warrants may expire and never be exercised.

Recent Developments

This Prospectus Supplement is being filed to update and supplement the information in the Prospectus with the information contained in our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 4, 2013 (the Quarterly Report). Accordingly, we have attached the Quarterly Report to this Prospectus Supplement. Any statement contained in the Prospectus shall be deemed to be modified or superseded to the extent that information in this Prospectus Supplement modifies or supersedes such statement. Any statement that is modified or superseded shall not be deemed to constitute a part of the Prospectus except as modified or superseded by this Prospectus Supplement.

This Prospectus Supplement should be read in conjunction with, and may not be delivered or utilized without, the Prospectus.

In reviewing this Prospectus Supplement, you should carefully consider the matters described under the caption Risk Factors beginning on page 4 of the Prospectus.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this Prospectus Supplement is truthful or complete. Any representation to the contrary is a criminal offense.

This Prospectus Supplement does not constitute an offer to sell or the solicitation of an offer to buy any securities.

The date of this Prospectus Supplement is November 4, 2013

Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2013

OR

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

For the transition period from _____ to _____

Commission File Number 001-32157

Mast Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**84-1318182**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
12390 El Camino Real, Suite 150, San Diego, CA	**92130**
(Address of principal executive offices)	**(Zip Code)**

(858) 552-0866

(Registrant s telephone number, including area code)

N/A

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

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

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

Large accelerated filer ¨	Accelerated filer ¨
Non-accelerated filer ¨	Smaller reporting company x

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

The number of shares outstanding of the registrant s common stock, $0.001 par value per share, as of November 1, 2013 was 102,710,286.

Table of Contents

TABLE OF CONTENTS

Table of Contents

PART I FINANCIAL INFORMATION

Item 1. Financial Statements

Mast Therapeutics, Inc. and Subsidiaries

(A Development Stage Enterprise)

Condensed Consolidated Balance Sheets

(Unaudited)

	September 30, 2013	December 31, 2012
Assets		
Current assets:		
Cash and cash equivalents	$ 30,231,154	$ 22,500,440
Investment securities	19,131,616	14,010,962
Interest and other receivables	29,185	15,689
Prepaid expenses	542,423	646,571
Total current assets	49,934,378	37,173,662
Property and equipment, net	115,092	198,358
In-process research and development	6,549,000	6,549,000
Goodwill	3,006,883	3,006,883
Other assets	43,912	43,912
Total assets	$ 59,649,265	$ 46,971,815
Liabilities and Stockholders Equity		
Current liabilities:		
Accounts payable	$ 794,674	$ 698,838
Accrued liabilities	2,155,179	1,283,976
Accrued compensation and payroll taxes	1,026,888	445,352
Contingent liability		142,500
Total current liabilities	3,976,741	2,570,666
Deferred income tax liability	2,608,755	2,608,755
Total liabilities	6,585,496	5,179,421
Stockholders equity:		
Common stock, $0.001 par value; 500,000,000 shares authorized; 102,710,286 and 47,719,365 shares issued at September 30, 2013 and December 31, 2012, respectively; 102,710,286 and 46,265,286 shares outstanding at September 30, 2013 and December 31, 2012, respectively	102,710	47,720

Treasury stock, at cost 0 and 1,454,079 shares at September 30, 2013 and December 31, 2012, respectively		(1,454)
Additional paid-in capital	253,713,892	226,696,863
Accumulated other comprehensive loss	(28,722)	(2,194)
Deficit accumulated during the development stage	(200,724,111)	(184,948,541)
Total stockholders equity	53,063,769	41,792,394
Total liabilities and stockholders equity	$ 59,649,265	$ 46,971,815

See accompanying notes to unaudited condensed consolidated financial statements.

Table of Contents

Mast Therapeutics, Inc. and Subsidiaries

(A Development Stage Enterprise)

Condensed Consolidated Statements of Operations and Comprehensive Income/(Loss)

(Unaudited)

	Three months ended September 30,		Nine months ended September 30,		Inception (June 12, 1996) through
	2013	2012	2013	2012	September 30, 2013
Revenues:					
Net sales	$	$	$	$	$ 174,830
Licensing revenue					1,300,000
Grant revenue					618,692
Total net revenues					2,093,522
Cost of goods sold					51,094
Gross margin					2,042,428
Operating expenses:					
Research and development	3,102,240	1,657,902	9,382,087	5,976,217	95,439,543
Selling, general and administrative	2,158,417	1,816,181	6,371,048	5,732,478	74,037,760
Transaction-related expenses		(266,222)	35,000	(174,711)	706,652
Depreciation and amortization	10,064	10,638	28,738	77,569	11,053,973
Write-off of in-process research and development					10,422,130
Goodwill impairment					5,702,130
Equity in loss of investee					178,936
Total operating expenses	5,270,721	3,218,499	15,816,873	11,611,553	197,541,124
Loss from operations	(5,270,721)	(3,218,499)	(15,816,873)	(11,611,553)	(195,498,696)
Reduction of fair value of warrants					(12,239,688)
Interest income	17,327	18,347	42,638	56,300	4,874,846
Interest expense					(191,729)
Other income (expense), net	(137)	1,099	(1,335)	(7,480)	128,370
Loss before cumulative effect of change in accounting principle	(5,253,531)	(3,199,053)	(15,775,570)	(11,562,733)	(202,926,897)
Cumulative effect of change in accounting principle					(25,821)

Net loss	(5,253,531)	(3,199,053)	(15,775,570)	(11,562,733)	(202,952,718)
Preferred stock dividends					(621,240)
Deemed dividends on preferred stock					(10,506,683)
Net loss applicable to common stock	$ (5,253,531)	$ (3,199,053)	$ (15,775,570)	$ (11,562,733)	$ (214,080,641)
Net loss per common share basic and diluted	$ (0.05)	$ (0.07)	$ (0.23)	$ (0.24)	
Weighted average shares outstanding basic and diluted	102,710,286	47,715,709	67,781,879	47,715,709	
Comprehensive Income/(Loss):					
Net loss	$ (5,253,531)	$ (3,199,053)	$ (15,775,570)	$ (11,562,733)	$ (202,952,718)
Other comprehensive gains (losses)	(19,884)	76	(26,528)	79	(28,722)
Comprehensive loss	$ (5,273,415)	$ (3,198,977)	$ (15,802,098)	$ (11,562,654)	$ (202,981,440)

See accompanying notes to unaudited condensed consolidated financial statements.

Table of Contents

Mast Therapeutics, Inc. and Subsidiaries

(A Development Stage Enterprise)

Condensed Consolidated Statements of Cash Flows

(Unaudited)

	Nine months ended September 30,		Inception (June 12, 1996) through September 30, 2013
	2013	2012	
Cash flows from operating activities:			
Net loss	$ (15,775,570)	$ (11,562,733)	$ (202,952,718)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	28,738	77,569	10,603,975
Loss on disposals of equipment		4,503	61,315
Loss on fair value of warrants			12,239,688
Loss/(gain) on change in fair value of contingent consideration	35,000	(174,711)	(1,493,907)
Amortization of debt discount			450,000
Forgiveness of employee receivable			30,036
Impairment loss write-off of goodwill			5,702,130
Share-based compensation expense related to employee stock options and restricted stock issued	1,159,021	1,073,872	12,708,345
Expenses related to options issued to non-employees			204,664
Expenses paid by issuance of common stock			1,341,372
Expenses paid by issuance of warrants			573,357
Expenses paid by issuance of preferred stock			142,501
Expenses related to stock warrants issued			612,000
Equity in loss of investee			178,936
In-process research and development			10,422,130
Write-off of license agreement			152,866
Impairment of equipment		300,114	510,739
Cumulative effect of change in accounting principle			25,821
Amortization of premium / (accretion of discount) on investments in securities		21,840	(1,571,502)
Changes in assets and liabilities, net of effect of acquisitions:			
Decrease/(increase) in prepaid expenses and other assets	90,500	(437,266)	(865,359)
Increase in accounts payable and accrued liabilities	1,533,636	127,484	3,828,814
Net cash used in operating activities	(12,928,675)	(10,569,328)	(147,094,797)

Cash flows from investing activities:			
Purchases of certificates of deposit	(19,407,030)	(13,581,000)	(43,390,209)
Proceeds from maturities of certificates of deposit	14,260,000	6,880,000	23,703,330
Proceeds from sale of certificate of deposit			248,000
Purchases of other investment securities			(111,183,884)
Proceeds from maturities and sales of other investment securities			113,036,378
Purchases of property and equipment	(45,348)	(210,909)	(1,782,152)
Proceeds from sale of property and equipment			66,920
Cash paid for acquisitions, net of cash acquired			32,395
Payment on obligation under license agreement			(106,250)
Issuance of note receivable - related party			(35,000)
Payments on note receivable			405,993
Advance to investee			(90,475)
Cash transferred in rescission of acquisition			(19,475)
Cash received in rescission of acquisition			230,000
Net cash used in investing activities	(5,192,378)	(6,911,909)	(18,884,429)

Table of Contents

Cash flows from financing activities:			
Proceeds from sale of common stock	28,097,500		151,756,371
Proceeds from exercise of stock options			714,561
Proceeds from sale or exercise of warrants			14,714,258
Proceeds from sale of preferred stock			44,474,720
Repurchase of Subject to Vesting Shares			(1,454)
Repurchase of warrants			(55,279)
Payments for financing and offering costs	(2,244,211)		(16,141,578)
Payments on notes payable and long-term debt			(605,909)
Proceeds from issuance of notes payable and detachable warrants			1,344,718
Cash paid in lieu of fractional shares for reverse stock split			(146)
Net cash provided by financing activities	25,853,289		196,200,262
Effect of exchange rate changes on cash	(1,522)		10,118
Net increase/(decrease) in cash and cash equivalents	7,730,714	(17,481,237)	30,231,154
Cash and cash equivalents at beginning of period	22,500,440	43,569,947	
Cash and cash equivalents at end of period	$ 30,231,154	$ 26,088,710	$ 30,231,154

See accompanying notes to unaudited condensed consolidated financial statements.

Table of Contents

Mast Therapeutics, Inc. and Subsidiaries

(A Development Stage Enterprise)

Notes to Condensed Consolidated Financial Statements (Unaudited)

1. Basis of Presentation

Mast Therapeutics, Inc., a Delaware corporation (Mast Therapeutics, we or our company), prepared the unaudited interim condensed consolidated financial statements included in this report in accordance with United States generally accepted accounting principles (U.S. GAAP) for interim financial information and the rules and regulations of the Securities and Exchange Commission (SEC) related to quarterly reports on Form 10-Q. Accordingly, they do not include all of the information and disclosures required by U.S. GAAP for annual audited financial statements and should be read in conjunction with our audited consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2012, filed with the SEC on March 19, 2013 (2012 Annual Report). The condensed consolidated balance sheet as of December 31, 2012 included in this report has been derived from the audited consolidated financial statements included in the 2012 Annual Report. In the opinion of management, these condensed consolidated financial statements include all adjustments (consisting of normal recurring adjustments) necessary for a fair statement of the financial position, results of operations and cash flows for the periods presented. The results of operations for the interim periods shown in this report are not necessarily indicative of the results that may be expected for any future period, including the full year.

We are a biopharmaceutical company focused on developing therapies for serious or life-threatening diseases. We have devoted substantially all of our resources to research and development (R&D), and acquisition of our product candidates. We have not yet marketed or sold any products or generated any significant revenue. Through our acquisition of SynthRx, Inc. in 2011, we acquired our Membrane Adhesion & Sealant Technology (MAST) platform, which includes proprietary poloxamer-related data and know-how derived from over two decades of clinical, nonclinical and manufacturing experience, and we are leveraging the MAST platform to develop MST-188 for diseases and conditions characterized by microcirculatory insufficiency.

In prior years, we were developing Exelbine and ANX-514, both of which are investigational oncology programs, but, beginning in 2012, we have focused our resources almost exclusively on development of MST-188.

In March 2013, we merged our wholly-owned subsidiary, Mast Therapeutics, Inc., with and into us and changed our name from ADVENTRX Pharmaceuticals, Inc. to Mast Therapeutics, Inc. The merger had no effect on our financial statements.

2. Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. On an ongoing basis, we evaluate our estimates, including estimates related to R&D expenses and share-based compensation expenses. We base our estimates on historical experience and various other relevant assumptions we believe to be reasonable under the circumstances. Actual results may differ from these estimates.

3. Acquisition of SynthRx

On February 12, 2011, we entered into an agreement and plan of merger (the Merger Agreement) to acquire SynthRx, Inc. (SynthRx), a privately-held Delaware corporation, in exchange for shares of our common stock as described below. The transaction was completed on April 8, 2011 and SynthRx became a wholly-owned subsidiary of Mast Therapeutics. As consideration for the transaction, all shares of SynthRx common stock outstanding immediately prior to the effective time of the merger were cancelled and automatically converted into the right to receive shares of our common stock, in the aggregate, as follows:

(i) 862,078 shares of our common stock, which were issued on April 8, 2011 (the Fully Vested Shares) and represent 1,000,000 shares less 137,922 shares that were deducted as a result of certain expenses of SynthRx;

(ii) up to 1,938,773 shares of our common stock (the Subject to Vesting Shares, and together with the Fully Vested Shares, the Closing Shares), which were issued on April 8, 2011 subject to various repurchase rights by us that were triggered based on the timing and circumstances of achievement of the First Milestone (defined below);

(iii) up to 1,000,000 shares of our common stock (the First Milestone Shares) issuable upon achievement of the First Milestone;

Table of Contents

(iv) 3,839,400 shares of our common stock (the Second Milestone Shares) issuable upon achievement of the Second Milestone (defined below); and

(v) 8,638,650 shares of our common stock (the Third Milestone Shares, and together with the First Milestone Shares and the Second Milestone Shares, the Milestone Shares) issuable upon achievement of the Third Milestone (defined below).

The First Milestone was defined in the Merger Agreement as the dosing of the first patient in a phase 3 clinical study of purified poloxamer 188 carried out pursuant to a protocol that is mutually agreed to by SynthRx and Mast Therapeutics; provided, however, that the number of evaluable patients planned to target statistical significance with a p value of 0.01 in the primary endpoint shall not exceed 250 unless otherwise mutually agreed (the First Protocol). If the U.S. Food and Drug Administration (FDA) indicates that a single phase 3 clinical study will not be adequate to support approval of a new drug application covering the use of purified poloxamer 188 for the treatment of sickle cell crisis in children (the 188 NDA), First Milestone shall mean the dosing of the first patient in a phase 3 clinical study carried out pursuant to a protocol that (a) is mutually agreed to by SynthRx and Mast Therapeutics as such and (b) describes a phase 3 clinical study that the FDA has indicated may be sufficient, with the phase 3 clinical study described in the First Protocol, to support approval of the 188 NDA. We considered the dosing of the first patient in the EPIC study, our phase 3 clinical trial of MST-188 in sickle cell disease, to be the First Milestone.

The Subject to Vesting Shares were issued subject to a repurchase option that provided us the right to repurchase up to approximately 75% of the Subject to Vesting Shares, or 1,454,079 shares, for $0.001 per share based on the timing of achievement of the First Milestone and whether and the extent to which the number of evaluable patients planned to target statistical significance with a p value of 0.01 in the primary endpoint exceeds 250 patients, unless otherwise agreed.

Under the Merger Agreement, the number of shares issuable upon achievement of the First Milestone was subject to reduction by up to 75%, or 750,000 shares, based on the timing of achievement of the First Milestone and whether and the extent to which the number of evaluable patients planned to target statistical significance with a p value of 0.01 in the primary endpoint exceeded 250 patients, unless otherwise agreed.

The Second Milestone means the FDA s acceptance of the 188 NDA for review, and the Third Milestone means the approval by the FDA of the 188 NDA. Although issuance of the Second Milestone Shares and the Third Milestone Shares is contingent upon achievement of the Second Milestone and Third Milestone, respectively, the number of shares issuable upon achievement of each of those milestones is fixed.

Based on the estimated fair value of the Closing Shares and the Milestone Shares as of April 8, 2011, the acquisition date, the total purchase price was approximately $6.7 million.

Acquired In-Process Research and Development

Our acquired IPR&D was the estimated fair value as of the acquisition date of MST-188, which was SynthRx s lead product candidate. We determined that the estimated fair value of the MST-188 program was $6.5 million as of the acquisition date using the Multi-Period Excess Earnings Method, or MPEEM, which is a form of the income approach. Under the MPEEM, the fair value of an intangible asset is equal to the present value of the asset s incremental after-tax cash flows (excess earnings) remaining after deducting the market rates of return on the estimated value of contributory assets (contributory charge) over its remaining useful life.

To calculate fair value of the MST-188 program under the MPEEM, we used probability-weighted cash flows discounted at a rate considered appropriate given the significant inherent risks associated with drug development by development-stage companies. Cash flows were calculated based on estimated projections of revenues and expenses related to MST-188 in sickle cell disease and then reduced by a contributory charge on requisite assets employed. Contributory assets included debt-free working capital, net fixed assets and assembled workforce. Rates of return on the contributory assets were based on rates used for comparable market participants. Cash flows were assumed to extend through the market exclusivity period estimated to be provided by orphan drug designation. The resultant cash flows were then discounted to present value using a weighted-average cost of equity capital for companies with profiles substantially similar to that of SynthRx, which we believe represents the rate that market participants would use to value the assets. We compensated for the phase of development of this program by applying a probability factor to our estimation of the expected future cash flows. The projected cash flows were based on significant assumptions, such as the time and resources needed to complete the development and approval of MST-188 in sickle cell disease, estimates of revenue and operating profit related to the program considering its stage of development, the life of the potential commercialized product and associated risks, including the inherent difficulties and uncertainties in drug development, such as obtaining marketing approval from the FDA and other regulatory agencies, and risks related to the viability of and potential alternative treatments in any future target markets.

Table of Contents

We test our acquired IPR&D for impairment annually (and between annual tests if we become aware of an event or a change in circumstances that would indicate the carrying amount may be impaired) in accordance with Accounting Standards Codification (ASC) Topic 350, *Intangibles Goodwill and Other* and Accounting Standards Update (ASU) No. 2012-02, *Intangibles Goodwill and Other (Topic 350): Testing Indefinite-Lived Intangible Assets for Impairment*. We perform our annual indefinite-lived intangible assets impairment testing as of September 30 of each year. As of September 30, 2013, no impairment was noted.

Goodwill

A value of $3.0 million, representing the difference between the total purchase price and the aggregate fair values of tangible and intangible assets acquired, less liabilities assumed, was recorded as goodwill. We acquired SynthRx to expand our product pipeline, enter into new therapeutic areas and address unmet market needs. These are among the factors that contributed to a purchase price for the SynthRx acquisition that resulted in the recognition of goodwill.

We test our goodwill for impairment annually (and between annual tests if we become aware of an event or a change in circumstances that would indicate the carrying amount may be impaired) in accordance with ASC Topic 350, *Intangibles Goodwill and Other*, and ASU No. 2011-08, *Intangibles Goodwill and Other (Topic 350): Testing Goodwill for Impairment*. We perform our annual goodwill impairment testing as of September 30 of each year and this year we elected to bypass the qualitative assessment and proceed directly to the two-step quantitative impairment test. Step 1 requires a comparison of the carrying value of a reporting unit, including goodwill, to its estimated fair value. We test for goodwill impairment at the entity level because we operate on the basis of a single reporting unit. In Step 1 of the two-step quantitative test, we compared our carrying value, including goodwill and acquired IPR&D, to estimated fair value. Estimated fair value of the entity included market values for our cash, cash equivalents and investment securities, as well as the estimated fair value of acquired IPR&D. We calculated the estimated fair value of acquired IPR&D by using the MPEEM. This method requires us to make long-term projections of revenues and expenses related to development and commercialization of MST-188 in sickle cell disease and assumptions regarding the rate of return on contributory assets, the weighted average cost of capital and the probability adjustment factor for estimated future after-tax cash flows. Through Step 1 of the impairment test, we concluded that, as of September 30, 2013, the fair value of the entity was substantially greater than its carrying value, and, therefore, goodwill was not considered impaired. We estimated fair value based on assumptions that we believe to be reasonable but that are highly judgmental due in part to the inherent unpredictability of drug development, particularly by a development-stage company.

Deferred Income Tax Liability

The $2.6 million recorded for deferred income tax liability resulting from the acquisition reflects the tax impact of the difference between the book basis and tax basis of acquired IPR&D. Such deferred income tax liability cannot be used to offset deferred tax assets when analyzing our end of year valuation allowance as the acquired IPR&D is considered to have an indefinite life until we complete or abandon development of MST-188.

Contingent Consideration

The Milestone Shares and 1,454,079 of the Subject to Vesting Shares were considered contingent consideration at the acquisition date because our obligation to issue the Milestone Shares and our repurchase rights with respect to 1,454,079 of the Subject to Vesting Shares were contingent on future events. To determine the classification of the fair value of this contingent consideration as a liability or equity, we reviewed ASC Topic 815-40, *Derivatives and Hedging Contracts in Entity s Own Equity* (ASC 815-40), which requires that contingent consideration arrangements that include potential net cash settlements or variable provisions be classified as a liability (or an asset,

as applicable). Such classification requires a fair value measurement initially and subsequently at each reporting date. Changes in the fair value of contingent consideration classified as a liability or an asset are recognized in earnings until the contingent consideration arrangement is settled. Classification as equity requires fair value measurement initially and there are no subsequent re-measurements. Settlement of equity-classified contingent consideration is accounted for within equity.

The probability-weighted fair values of the Second Milestone Shares and the Third Milestone Shares were recorded as equity as there is no net cash settlement provision and the number of shares that ultimately may be issued upon achievement of each of those milestones is fixed. However, the probability-weighted fair value of the First Milestone Shares was recorded as a contingent liability and the probability-weighted fair value of 1,454,079 of the Subject to Vesting Shares was recorded as a contingent asset because there was variability with respect to the number of shares that we ultimately would be required to issue and repurchase, respectively, based on the circumstances of achievement of the First Milestone, as described above.

The contingent liability related to the First Milestone Shares was eliminated, or settled, in May 2013 with achievement of the First Milestone and our subsequent issuance of 250,000 of the First Milestone Shares. The contingent asset related to the 1,454,079 Subject to Vesting Shares was settled in December 2012 by our exercise in full of our repurchase option and purchase of the 1,454,079 shares from the former SynthRx stockholders for $0.001 per share. In accordance with ASC 815-40, we remeasured the contingent liability and contingent asset as of their respective settlement dates.

Table of Contents

4. Investment Securities

Investment securities are marketable equity or debt securities. All of our investment securities are available-for-sale securities and carried at fair value. Fair value for securities with short maturities and infrequent secondary market trades typically is determined by using a curve-based evaluation model that utilizes quoted prices for similar securities. The evaluation model takes into consideration the days to maturity, coupon rate and settlement date convention. Net unrealized gains or losses on these securities are included in accumulated other comprehensive loss, which is a separate component of stockholders equity. Realized gains and realized losses are included in other income/(expense), while amortization of premiums and accretion of discounts are included in interest income. Interest and dividends on available-for-sale securities are included in interest income. We periodically evaluate our investment securities for impairment. If we determine that a decline in fair value of any investment security is other than temporary, then the cost basis would be written down to fair value and the decline in value would be charged to earnings.

Our investment securities are under the custodianship of a major financial institution and consist of FDIC-insured certificates of deposit. We have classified all of our available-for-sale investment securities, including those with maturities beyond one year from the date of purchase, as current assets on our consolidated balance sheets because we consider them to be highly liquid and available for use, if needed, in current operations. As of September 30, 2013, $2.5 million of our investment securities had contractual maturity dates of more than one year and less than or equal to 18 months and none were greater than 18 months.

At September 30, 2013, the fair value of our investment securities was $19,131,616. The cost basis of such investments was $19,158,030 and our net unrealized losses were $26,414.

5. Fair Value of Financial Instruments

Our investment securities are and, prior to its settlement, our contingent liability was carried at fair value. The fair value of financial assets and liabilities is measured under a framework that establishes levels which are defined as follows: (i) Level 1 fair value is determined from observable, quoted prices in active markets for identical assets or liabilities; (ii) Level 2 fair value is determined from quoted prices for similar items in active markets or quoted prices for identical or similar items in markets that are not active; and (iii) Level 3 fair value is determined using the entity s own assumptions about the inputs that market participants would use in pricing an asset or liability.

The fair value at September 30, 2013 of our investment securities is summarized in the following table:

	September 30, 2013			
	Total Fair Value	Fair Value Determined Under: (Level 1)	(Level 2)	(Level 3)
Investment securities	$ 19,131,616	$	$ 19,131,616	$

The contingent liability was settled in May 2013. A reconciliation of the contingent liability for the nine months ended September 30, 2013 is as follows:

	Nine months ended September 30, 2013

Balance at December 31, 2012	$	(142,500)
Settlements		177,500
Total net losses included in earnings		(35,000)
Balance at September 30, 2013	$	0

The fair value of the contingent liability was measured and recorded on a recurring basis using significant unobservable inputs (Level 3). At each remeasurement date until the contingent arrangement was settled, we determined the fair value of the contingent liability based on the market price of our common stock on the measurement date and our estimate of the number of First Milestone Shares we would issue, which was based on our estimate of the probability of achievement of the First Milestone and assumptions regarding the circumstances under which it would be achieved. As discussed in Note 3, the contingent liability was settled in May 2013 and we issued 250,000 of the First Milestone Shares.

Table of Contents

6. Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. Property and equipment are depreciated using the straight-line method over the estimated useful lives of the assets, which generally is three to five years. Leasehold improvements are amortized over the economic life of the asset or the lease term, whichever is shorter.

In connection with our determination in 2012 to discontinue independent development of ANX-514, we assessed the classification and recoverability, at the end of each fiscal quarter, of certain equipment held and used in research and development-related manufacturing of ANX-514 (the ANX-514 equipment) by our contract manufacturer. The original cost of the ANX-514 equipment was $0.6 million. We determined, based on an independent appraisal, that the carrying amount of the ANX-514 equipment exceeded its estimated fair value and was not recoverable. For the year ended December 31, 2012, we recorded an impairment loss of $0.4 million, which was the difference between the carrying amount and estimated fair value at December 31, 2012, as a research and development expense in our consolidated statement of operations and comprehensive income/(loss). The ANX-514 equipment was not classified separately as held for sale as of December 31, 2012 because the criteria for that classification, as set forth in ASC Topic 360-10, *Property, Plant and Equipment Overall*, were not met.

In April 2013, in connection with reaching an agreement with our contract manufacturer regarding final payment for ANX-514 research-related manufacturing activities, we agreed to assign ownership of the ANX-514 equipment with a carrying amount of $99,875 to the contract manufacturer.

7. Accrued Liabilities

Accrued liabilities at September 30, 2013 and December 31, 2012 were as follows:

	September 30, 2013	December 31, 2012
Accrued contracts and study expenses	$ 1,829,235	$ 1,203,808
Other accrued liabilities	325,944	80,168
Total accrued liabilities	$ 2,155,179	$ 1,283,976

8. Share-Based Compensation Expense

Estimated share-based compensation expense related to equity awards granted to our employees and non-employee directors for the three and nine months ended September 30, 2013 and 2012 was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2013	2012	2013	2012
Selling, general and administrative expense	$ 395,316	$ 338,447	$ 1,033,921	$ 1,036,373
Research and development expense	47,012	21,096	125,100	37,499
Share-based compensation expense	$ 442,328	$ 359,543	$ 1,159,021	$ 1,073,872

During the nine months ended September 30, 2013, the only equity awards granted to our employees and non-employee directors were stock option awards. The following table summarizes such equity award activity:

	Shares Underlying Option Awards	Weighted-Average Exercise Price
Outstanding at December 31, 2012	3,585,743	$ 2.31
Granted	3,765,504	$ 0.51
Exercised		$
Cancelled/forfeited/expired	(203,144)	$ 0.74
Outstanding at September 30, 2013	7,148,103	$ 1.41

Table of Contents

At September 30, 2013, total unrecognized estimated compensation cost related to non-vested employee and non-employee director share-based awards granted prior to that date was $3.0 million, which is expected to be recognized over a weighted-average period of 2.9 years.

9. Net Loss Per Common Share

Basic and diluted net loss per common share was calculated by dividing the net loss applicable to common stock for the three and nine months ended September 30, 2013 and 2012 by the weighted-average number of common shares outstanding during those periods, respectively, without consideration for outstanding common stock equivalents because their effect would have been anti-dilutive. Common stock equivalents are included in the calculation of diluted earnings per common share only if their effect is dilutive. For the periods presented, our outstanding common stock equivalents consisted of options and warrants to purchase shares of our common stock. The weighted-average number of those common stock equivalents outstanding for each of the periods presented is set forth in the table below:

	Three months ended September 30,		Nine months ended September 30,	
	2013	2012	2013	2012
Options	7,190,672	3,120,646	5,242,471	2,949,056
Warrants	44,585,932	16,652,811	27,192,242	17,296,389

10. Recent Accounting Pronouncements

In July 2013, the Financial Accounting Standards Board (FASB) issued ASU No. 2013-11, *Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists* (ASU 2013-11). This standard requires an unrecognized tax benefit related to a net operating loss carryforward, a similar tax loss or a tax credit carryforward to be presented as a reduction to a deferred tax asset, unless the tax benefit is not available at the reporting date to settle any additional income taxes under the tax law of the applicable tax jurisdiction. ASU 2013-11 is effective for fiscal years and interim periods beginning after December 15, 2013, with early adoption permitted. We do not believe that the adoption of this standard will have an impact on our consolidated financial position, results of operations or cash flows.

In February 2013, FASB issued ASU No. 2013-02, *Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income* (ASU 2013-02). This standard requires companies to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, companies are required to present, either on the face of the statement where net income is presented or in the accompanying notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income, but only if the amount reclassified is required to be reclassified to net income in its entirety in the same reporting period. For amounts that are not required to be reclassified in their entirety to net income, companies are required to cross-reference to other disclosures that provide additional detail on those amounts. ASU 2013-02 is effective prospectively for reporting periods beginning after December 15, 2012. We adopted this guidance effective January 1, 2013. Our adoption of this standard did not have a significant impact on our consolidated financial position, results of operations and other comprehensive income/loss or cash flows. There were no realized gains or losses on marketable securities in the three months ended September 30, 2013.

In December 2011, FASB issued ASU 2011-11, *Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities* (ASU 2011-11). ASU 2011-11 requires companies to provide new disclosures about offsetting and related

arrangements for financial instruments and derivatives. The provisions of ASU 2011-11 are effective for annual reporting periods beginning on or after January 1, 2013, and must be applied retrospectively. We adopted this guidance effective January 1, 2013. The adoption of this standard did not have a significant impact on our consolidated financial position, results of operations and other comprehensive income/loss or cash flows.

Table of Contents

11. Supplemental Cash Flow Information

Non-cash investing and financing transactions presented separately from the condensed consolidated statements of cash flows for the nine months ended September 30, 2013 and 2012 and for the period from inception (June 12, 1996) through September 30, 2013 are as follows:

	Nine months ended September 30,		Inception (June 12, 1996) through September 30, 2013
	2013	2012	
Supplemental disclosures of cash flow information:			
Interest paid	$	$	$ 180,719
Supplemental disclosures of non-cash investing and financing activities:			
Issuance of warrants, common stock and preferred stock for:			
Conversion of notes payable and accrued interest			1,213,988
Prepaid services to consultants			1,482,781
Conversion of preferred stock			13,674
Acquisitions			30,666,878
Issuance of common stock to pay dividends			213,000
Financial advisor services in conjunction with financings			3,477,571
Underwriter commissions in conjunction with financings			766,784
Acquisition of treasury stock in settlement of a claim			34,737
Cancellation of treasury stock			(34,737)
Assumptions of liabilities in acquisitions			1,531,806
Fair value of contingent liabilities, net of contingent assets, recorded at acquisition date			784,419
Issuance of common stock for milestone achievement	250		250
Acquisition of license agreement for long-term debt			161,180
Unrealized loss/(gain) on investment securities	26,528	(79)	26,566
Disposal of equipment in conjunction with settlement of a liability	99,875		99,875
Cashless exercise of warrants			4,312
Dividends accrued			621,040
Trade asset converted to available-for-sale asset			108,000
Dividends extinguished			408,240
Trade payable converted to note payable			83,948
Issuance of warrants for return of common stock			50,852
Detachable warrants issued with notes payable			450,000
Cumulative preferred stock dividends			13,502,403

Purchases of property and equipment in accounts payable		22,966
Financing costs in accounts payable and accrued liabilities	116,336	116,336

12. Stockholders Equity

Underwritten Public Offering of Common Stock and Warrants

In June 2013, we completed an underwritten public offering of 56,195,000 shares of our common stock and warrants to purchase up to 28,097,500 additional shares of our common stock. Of the 56,195,000 shares of our common stock issued, 1,454,079 of such shares were issued from our treasury stock. These securities were offered and sold to the underwriters and the public in units with each unit consisting of one share of common stock and one warrant to purchase up to 0.5 of a share of common stock. The gross proceeds from this financing were $28.1 million and, after deducting underwriting discounts and commissions and our other offering expenses, our net proceeds were $25.7 million. We may receive up to $18.3 million of additional proceeds from the exercise of the warrants issued in the financing. The exercise price of the warrants is $0.65 per share. Subject to certain beneficial ownership limitations, the warrants are exercisable at any time on or before June 19, 2018.

Table of Contents

Outstanding Warrants

At September 30, 2013, outstanding warrants to purchase shares of common stock are as follows:

Shares Underlying Outstanding Warrants	Exercise Price	Expiration Date
99,696	$ 11.9125	June 2014
36,071	$ 3.7500	June 2014
19,007	$ 4.4750	July 2014
14,183	$ 4.0625	August 2014
144,000	$ 5.8750	October 2014
216,000	$ 3.6700	October 2014
409,228	$ 3.4400	April 2015
1,062,500	$ 1.0000	April 2015
1,816,608	$ 3.6500	May 2015
2,046,139	$ 2.7500	January 2016
10,625,000	$ 1.1000	November 2016
28,097,500	$ 0.6500	June 2018
44,585,932		

Table of Contents

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the condensed consolidated financial statements and accompanying notes appearing elsewhere in this report. For additional context with which to understand our financial condition and results of operations, see the discussion and analysis included in Part II, Item 7 of our annual report on Form 10-K for the year ended December 31, 2012, filed with the U.S. Securities and Exchange Commission, or SEC, on March 19, 2013, as well as the consolidated financial statements and accompanying notes contained therein. In addition to historical information, this discussion and analysis contains forward-looking statements that involve risks, uncertainties, and assumptions. Our actual results could differ materially from those discussed in these forward-looking statements as a result of various factors, including but not limited to those identified under Forward Looking Statements below and those discussed in Item 1A (Risk Factors) of Part II of our quarterly report on Form 10-Q for the period ended June 30, 2013, filed with the SEC on August 5, 2013. Mast Therapeutics , our corporate logo, SynthRx® and Exelbine are trademarks of our company. All trademarks, service marks or trade names appearing in this report are the property of their respective owners. Use or display by us of other parties trademarks, service marks or trade names is not intended to and does not imply a relationship with, or endorsements or sponsorship of, us by the trademark, service mark or trade name owners.

Overview

We are a biopharmaceutical company developing novel therapies for serious or life-threatening diseases with significant unmet needs. We are leveraging our Molecular Adhesion & Sealant Technology, or MAST, platform, derived from over two decades of clinical, nonclinical and manufacturing experience with purified and non-purified poloxamers, to develop MST-188, our lead product candidate, for diseases and conditions characterized by microcirculatory insufficiency (endothelial dysfunction and/or impaired blood flow).

We have devoted substantially all of our resources to research and development, or R&D, and to acquisition of our product candidates. We have not yet marketed or sold any products or generated any significant revenue and we have incurred significant annual operating losses since inception. We incurred a loss from operations of $15.8 million for the nine months ended September 30, 2013. Our cash, cash equivalents and investment securities were $49.4 million as of September 30, 2013.

We continue to focus our resources on MST-188. We believe that its pharmacologic effects support its development in a wide range of diseases and conditions and we intend to develop MST-188 in multiple clinical indications, both independently and through collaborations. Earlier this year, we initiated the EPIC study, a pivotal phase 3 study of MST-188 in sickle cell disease, and enrolling subjects in that study is one of our top priorities. In addition to sickle cell disease, our MST-188 pipeline includes development programs in adjunctive thrombolytic therapy (e.g., acute limb ischemia, stroke), heart failure, and resuscitation (i.e., restoration of circulating blood volume and pressure) following major trauma.

In July 2013, we announced that our thorough QT/QTc clinical study of MST-188, or the TQT study, met its primary endpoint and demonstrated that, based on analysis of electrocardiograms, MST-188 did not have an adverse effect on cardiac repolarization, as measured by prolongation of the QT interval. Sixty four subjects received MST-188 and it was generally well-tolerated at both therapeutic and supratherapeutic doses.

We anticipate that our cash, cash equivalents and investment securities will be sufficient to fund our operations for at least the next 12 months. However, we have based this estimate on significant assumptions and we could utilize our available financial resources faster than we currently expect. For example, we may pursue development activities for

MST-188 in sickle cell disease and multiple other indications at levels or on timelines, or we may incur unexpected expenses, that shorten the period through which our current financial resources will sustain us. We expect to incur significant and increasing losses for the next several years as we advance MST-188 through clinical studies and other development activities and seek regulatory approval to commercialize it. We will need additional capital to support our planned operating activities. In addition, we may seek to expand our product pipeline through acquisition of additional product candidates and/or technologies. We expect that our capital requirements would increase in future periods if we determine to conduct studies of MST-188 in addition to those currently planned or pursue its development in additional indications or if we determine to expand our product pipeline with new product candidates and/or technologies. For the foreseeable future, we plan to fund our operations through public or private equity and/or debt financings and through collaborations, including licensing arrangements. However, adequate additional financing may not be available to us on acceptable terms, on a timely basis, or at all. Our failure to raise capital as and when needed would have a material and adverse effect on our financial condition and ability to pursue our business strategy.

Table of Contents