UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

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

For the quarterly period ended September 30, 2023

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: 001-38899

Milestone Pharmaceuticals Inc.
(Exact Name of Registrant as Specified in its Charter)

Québec	**Not applicable**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1111 Dr. Frederik-Philips Boulevard , Suite 420
Montréal, Québec CA H4M 2X6
(514) 336-0444
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares	MIST	The Nasdaq Stock Market LLC

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 every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
Emerging growth company	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☒

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

As of November 13th, 2023, the registrant had 33,483,111 common shares, no par value per share, outstanding.

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“Milestone Pharmaceuticals” and the Milestone logo appearing in this Quarterly Report on Form 10-Q are unregistered trademarks of Milestone Pharmaceuticals Inc. All other trademarks, trade names and service marks appearing in this Quarterly Report on Form 10-Q are the property of their respective owners. Solely for convenience, the trademarks and trade names in this Quarterly Report on Form 10-Q may be referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert their rights thereto.

This Quarterly Report on Form 10-Q contains references to United States dollars and Canadian dollars. All dollar amounts referenced, unless otherwise indicated, are expressed in United States dollars. References to “$” are to United States dollars and references to “C$” are to Canadian dollars.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this Quarterly Report on Form 10-Q, including statements regarding our strategy, future financial condition, future operations, projected costs, prospects, plans, objectives of management and expected market growth, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "contemplate," "continue," "could," "design," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "predict," "positioned," "potential," "seek," "should," "target," "will," "would" and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, including risks described in the section titled "Risk Factors" and elsewhere in this Quarterly Report on Form 10-Q, regarding, among other things:

- the initiation, timing, progress and results of our current and future clinical trials of etripamil, including our Phase 3 clinical trials of etripamil for the treatment of paroxysmal supraventricular tachycardia, our Phase 2 clinical trial of etripamil for the treatment of atrial fibrillation with rapid ventricular rate, and of our research and development programs;
- our plans to develop and commercialize etripamil and any future product candidates;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our ability to develop and, if approved by regulatory authorities, commercialize etripamil in China and Taiwan through our license agreement with Ji Xing Pharmaceuticals;
- our ability to establish collaborations or obtain additional funding;
- our ability to obtain regulatory approval of our current and future product candidates;
- our expectations regarding the potential market size and the rate and degree of market acceptance of etripamil and any future product candidates;
- our ability to fund our working capital requirements and expectations regarding the sufficiency of our capital resources;
- the implementation of our business model and strategic plans for our business, etripamil and any future product candidates;
- our intellectual property position and the duration of our patent rights;

- developments or disputes concerning our intellectual property or other proprietary rights;
- our expectations regarding government and third-party payer coverage and reimbursement;
- our ability to compete in the markets we serve;
- the impact of government laws and regulations;
- developments relating to our competitors and our industry; and
- other factors that may impact our financial results.

The foregoing list of risks is not exhaustive. Other sections of this Quarterly Report on Form 10-Q and the section titled "Risk Factors" previously disclosed in Part I, Item 1A. in our Annual Report on Form 10-K may include additional factors that could harm our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements.

In light of the significant uncertainties in these forward-looking statements, you should not rely upon forward-looking statements as predictions of future events. Although we believe that we have a reasonable basis for each forward-looking statement contained in this Quarterly Report on Form 10-Q, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur at all. You should refer to the section titled "Risk Factors" previously disclosed in Part I, Item 1A. in our Annual Report on Form 10-K, filed with the SEC and under Milestone's SEDAR profile at www.sedarplus.com on March 29, 2023, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

Milestone Pharmaceuticals Inc.
Condensed Consolidated Balance Sheets (Unaudited)
(in thousands of US dollars, except share data)

	September 30, 2023	December 31, 2022
Assets		
Current assets		
Cash and cash equivalents	$ 9,879	$ 7,636
Short-term investments	65,867	56,949
Research and development tax credits receivable	569	331
Prepaid expenses	6,961	6,005
Other receivables	1,521	882
Total current assets	84,797	71,803
Operating lease assets	2,047	2,423
Property and equipment	272	257
Total assets	$ 87,116	$ 74,483
Liabilities, and Shareholders' Equity		
Current liabilities		
Accounts payable and accrued liabilities	$ 7,584	$ 5,644
Operating lease liabilities	530	495
Total current liabilities	8,114	6,139
Operating lease liabilities, net of current portion	1,583	1,996
Senior secured convertible notes	48,915	—
Total liabilities	58,612	8,135
Shareholders' Equity		
Common shares, no par value, unlimited shares authorized 33,481,787 shares issued and outstanding as of September 30, 2023, 34,286,002 shares issued and outstanding as of December 31, 2022	260,502	273,900
Pre-funded warrants - 9,577,257 issued and outstanding as of September 30, 2023 and 8,518,257 as of December 31, 2022	48,459	34,352
Additional paid-in capital	31,958	24,437
Accumulated deficit	(312,415)	(266,341)
Total shareholders' equity	28,504	66,348
Total liabilities and shareholders' equity	$ 87,116	$ 74,483

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

Milestone Pharmaceuticals Inc.
Condensed Consolidated Statements of Loss (Unaudited)
(in thousands of US dollars, except share and per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2023	**2022**	**2023**	**2022**
Revenue	$ —	$ 1,500	$ 1,000	$ 1,500
Operating expenses				
Research and development, net of tax credits	6,721	9,826	25,600	29,251
General and administrative	4,227	4,034	12,561	11,595
Commercial	4,412	2,670	10,137	6,537
Loss from operations	(15,360)	(15,030)	(47,298)	(45,883)
Interest income	1,120	474	2,921	672
Interest expense	(841)	—	(1,697)	—
Net loss and comprehensive loss	$ (15,081)	$ (14,556)	$ (46,074)	$ (45,211)
Weighted average number of shares and pre-funded warrants outstanding, basic and diluted	42,973,160	42,491,787	42,920,620	42,339,123
Net loss per share, basic and diluted	$ (0.35)	$ (0.34)	$ (1.07)	$ (1.07)

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

Milestone Pharmaceuticals Inc.
Condensed Consolidated Statements of Shareholders' Equity (Unaudited)
(in thousands of US dollars, except share data)

	Common Shares		Pre-funded warrants				
	Number of shares	Amount	Number of warrants	Amount	Additional paid-in capital	Accumulated deficit	Total
Balance as of June 30, 2022	30,005,884	$ 252,236	12,327,780	$ 52,941	$ 20,090	$ (238,608)	$ 86,659
Transactions in three-month period ended September 30, 2022							
Net loss	—	—	—	—	—	(14,556)	(14,556)
Exercise of stock options	20,989	57	—	—	(29)	—	28
Share-based compensation	—	—	—	—	2,380	—	2,380
Issuance of common shares, net of issuance costs	361,236	2,644	—	—	—	—	2,644
Balance as of September 30, 2022	30,388,109	$ 254,937	12,327,780	$ 52,941	$ 22,441	$ (253,164)	$ 77,155
Balance as of June 30, 2023	33,363,971	$ 260,169	9,577,257	$ 48,459	$ 29,114	$ (297,334)	$ 40,408
Transactions in three-month period ended September 30, 2023							
Net loss	—	—	—	—	—	(15,081)	(15,081)
Exercise of stock options	18,798	68	—	—	(28)	—	40
Share-based compensation	—	—	—	—	2,872	—	2,872
Employee stock purchase plan purchases	99,018	265	—	—	—	—	265
Balance as of September 30, 2023	33,481,787	$ 260,502	9,577,257	$ 48,459	$ 31,958	$ (312,415)	$ 28,504
Balance as of December 31, 2021	29,897,559	$ 251,901	12,327,780	$ 52,941	$ 15,711	$ (207,953)	$ 112,600
Transactions in nine-month period ended September 30, 2022							
Net loss	—	—	—	—	—	(45,211)	(45,211)
Exercise of stock options	129,314	392	—	—	(175)	—	217
Share-based compensation	—	—	—	—	6,905	—	6,905
Issuance of common shares, net of issuance costs	361,236	2,644	—	—	—	—	2,644
Balance as of September 30, 2022	30,388,109	$ 254,937	12,327,780	$ 52,941	$ 22,441	$ (253,164)	$ 77,155
Balance as of December 31, 2022	34,286,002	$ 273,900	8,518,257	$ 34,352	$ 24,437	$ (266,341)	$ 66,348
Transactions in nine-month period ended September 30, 2023							
Net loss	—	—	—	—	—	(46,074)	(46,074)
Exercise of stock options	112,779	324	—	—	(136)	—	188
Pre-funded warrants - Private Placement, net of issuance costs	—	—	1,059,000	14,107	—	—	14,107
Share-based compensation	—	—	—	—	7,657	—	7,657
Cancellation of common shares	(1,059,000)	(14,115)	—	—	—	—	(14,115)
Employee stock purchase plan purchases	142,006	393	—	—	—	—	393
Balance as of September 30, 2023	33,481,787	$ 260,502	9,577,257	$ 48,459	$ 31,958	$ (312,415)	$ 28,504

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

Milestone Pharmaceuticals Inc.
Condensed Consolidated Statements of Cash Flows (Unaudited)
(in thousands of US dollars)

	Nine months ended September 30,	
	2023	**2022**
Cash flows used in operating activities		
Net loss	$ (46,074)	$ (45,211)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation of property and equipment	66	74
Amortization of debt costs	160	—
Accretion of investment discount	(79)	—
Non-cash interest expense related to debt	1,537	—
Share-based compensation expense	7,657	6,905
Changes in operating assets and liabilities:		
Other receivables	(639)	(308)
Research and development tax credits receivable	(238)	161
Prepaid expenses	(956)	(759)
Operating lease assets and liabilities	(2)	47
Accounts payable and accrued liabilities	1,940	(516)
Net cash used in operating activities	(36,628)	(39,607)
Cash provided by (used in) investing activities		
Acquisition of property and equipment	(81)	(162)
Acquisition of short-term investments	(95,839)	(62,947)
Redemption of short-term investments	87,000	23,000
Net cash used in investing activities	(8,920)	(40,109)
Cash provided by financing activities		
Proceeds from exercise of options	188	217
Proceeds from issuance of senior secured convertible debt	50,000	—
Issuance of common shares, net of issuance costs	—	2,644
Pre-funded warrant issuance costs	(8)	—
Proceeds from employee stock purchase plan	393	—
Payment of debt issuance costs	(2,782)	—
Cash provided by financing activities	47,791	2,861
Net increase (decrease) in cash and cash equivalents	2,243	(76,855)
Cash and cash equivalents – Beginning of period	7,636	114,141
Cash and cash equivalents – End of period	$ 9,879	$ 37,286

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

Milestone Pharmaceuticals Inc.
Notes to Condensed Consolidated Financial Statements
For the Nine Months Ended September 30, 2023 and 2022 (Unaudited)
(in thousands of US dollars, except where noted and for share and per share data)

1 Organization and Nature of Operations

Milestone Pharmaceuticals Inc. (Milestone or the Company) is a biopharmaceutical company incorporated under the *Business Corporations Act* (Québec). Milestone is focused on the development and commercialization of cardiovascular medicines. Milestone's lead product candidate, etripamil, is a novel, potent rapid-onset calcium channel blocker that the Company designed and is developing as a rapid-onset nasal spray to be administered by patients. The Company is developing etripamil to treat paroxysmal supraventricular tachycardia, atrial fibrillation, and other cardiovascular indications.

2 Summary of Significant Accounting Policies

a) Basis of Consolidation

The consolidated financial statements include the accounts of the Company and Milestone Pharmaceuticals USA, Inc. All intercompany transactions and balances have been eliminated.

b) Basis of Presentation and Use of Accounting Estimates and Significant Accounting Policies

These unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America, or "US GAAP", and on a basis consistent with those accounting principles followed by the Company and disclosed in Note 2 of its most recent annual consolidated financial statements. Certain information, in particular the accompanying notes normally included in the annual financial statements prepared in accordance with US GAAP have been omitted or condensed. Accordingly, these unaudited interim condensed consolidated financial statements do not include all the information required for full annual financial statements, and therefore, should be read in conjunction with the annual consolidated financial statements and the notes thereto for the year ended December 31, 2022.

In the opinion of the Company's management, the accompanying unaudited interim condensed consolidated financial statements contain all adjustments, consisting of only normal recurring adjustments, necessary for a fair statement of its balance sheet as of September 30, 2023, and its statements of loss and shareholders' equity for the three and nine months ended September 30, 2023 and 2022 and its statements of cash flows for the nine months ended September 30, 2023 and 2022.

The condensed consolidated balance sheet as of December 31, 2022, was derived from audited annual consolidated financial statements, but does not contain all the footnote disclosures required by accounting principles generally accepted in the United States of America.

These unaudited interim condensed consolidated financial statements are presented in US dollars, which is the Company's functional currency.

The preparation of unaudited interim condensed consolidated financial statements in conformity with US GAAP requires the Company to make estimates and judgments that affect certain reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the period. The Company bases its estimates and assumptions on current facts, historical experience and various other factors that it believes are reasonable under the circumstances, to determine the carrying values of assets and liabilities that are not readily apparent from other sources. Significant estimates and judgments include, but are not limited to,

- Estimates of the percentage of work completed of the total work over the life of an individual clinical trial in accordance with agreements established with contracted research organizations, or "CRO", contracted

manufacturing organizations, or "CMO", and clinical trial sites which in turn impact the research & development expenses.

- Estimate of the grant date fair value share options granted to employees, consultants and directors, and the resulting share-based compensation expense, using the Black-Scholes option-pricing model.

c) Significant Risks and Uncertainties

The Company is subject to challenges and risks specific to its business and its ability to execute on its strategy, as well as risks and uncertainties common to companies in the pharmaceutical industry, including, without limitation, risks and uncertainties associated with: obtaining regulatory approval of its product candidate; delays or problems in the supply of its study drug or failure to comply with manufacturing regulations; identifying, acquiring or in-licensing product candidates; pharmaceutical product development and the inherent uncertainty of clinical success; and the challenges of protecting and enhancing its intellectual property rights; and complying with applicable regulatory requirements.

Further, the Company may be impacted by general economic, political, and market conditions, including deteriorating market conditions due to investor concerns regarding inflation, international armed conflicts and overall fluctuations in the financial markets in the United States and abroad.

d) Recent Accounting Pronouncements

The Company has considered recent accounting pronouncements and concluded that they are either not applicable to the business or that the effect is not expected to be material to the unaudited condensed consolidated financial statements as a result of future adoption.

e) Sources of Liquidity and Funding Requirements

The Company incurred operating losses and has experienced negative operating cash flows since its inception and anticipates to continue to incur losses for at least the next several years. As of September 30, 2023, the Company had cash, cash equivalents and short-term investments of $75.7 million and an accumulated deficit of $ 312.4 million. Management has evaluated the Company's operating plan against its existing cash and cash equivalents and determined that the Company expects to be able to support its operations for at least the next 12 months from the date of issuance of these unaudited interim consolidated financial statements.

3 Revenues

The Company recorded no revenue for the three months ended September 30, 2023 and $ 1.0 million in revenue during the nine months ended September 30, 2023. This revenue is due to a milestone reached as a result of the successful initiation of a Phase 1 Clinical Trial of the product by or on behalf of Ji Xing for the treatment of paroxysmal supraventricular tachycardia, or "PSVT", in the Territory. The Company recorded $1.5 million in revenue for the three and nine months ended September 30, 2022. This revenue was related to a milestone reached as a result of the first patient dosed in a Phase 3 Clinical Trial for the treatment of PSVT in the Territory. For details on the arrangement with Ji Xing, see Note 3 to our audited consolidated financial statements for the year ended December 31, 2022, filed on Form 10-K.

4 Short-term Investments

Short term investments are classified as held-to-maturity, are initially recognized at fair value and are subsequently accounted for at amortized cost. They are comprised of guaranteed investment certificates with a maturity greater than 90 days but less than one year and, as such, are classified as current assets.

Milestone Pharmaceuticals Inc.
Notes to Condensed Consolidated Financial Statements
For the Three and Nine Months Ended September 30, 2023 and 2022 (Unaudited)
(in thousands of US dollars, except where noted and for share and per share data)

5 Debt

On March 27, 2023, we entered into a note purchase agreement, or the "Note Purchase Agreement", with RTW Investments LP and certain of its affiliates, or collectively, RTW.

On March 29, 2023, we closed the transactions contemplated by the Note Purchase Agreement, and issued and sold $50.0 million principal amount of 6.0% Convertible Senior Notes due 2029, or the "2029 Convertible Notes", to the holders.

The 2029 Convertible Notes are senior secured obligations and are guaranteed on a senior secured basis by our wholly owned subsidiary, Milestone Pharmaceuticals USA, Inc. Interest at the annual rate of 6.0% is payable quarterly in cash or, at our option, payable in kind for the first three years. The maturity date for the 2029 Convertible Notes is March 31, 2029, the "Maturity Date". The obligations under the 2029 Convertible Notes are secured by substantially all of our and our subsidiary guarantor's assets.

Each $1,000 of principal of the 2029 Convertible Notes (including any interest added thereto as payment in kind) is convertible into 191.0548 shares of our common shares, equivalent to an initial conversion price of approximately $ 5.23 per share, subject to customary anti-dilution and other adjustments. In addition, following a notice of redemption or certain corporate events that occur prior to the Maturity Date, we will, in certain circumstances, increase the conversion rate for a holder who elects to convert its 2029 Convertible Notes in connection with such notice of redemption or corporate event.

On or after March 27, 2027, the 2029 Convertible Notes are redeemable by us, subject to certain conditions, if the closing sale price of the common shares exceeds 150% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), including the trading day immediately preceding the date on which we provide notice of redemption, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption, at a redemption price equal to 100% of the principal amount of the 2029 Convertible Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

In accounting for the issuance of the Convertible Notes, the Company determined there were no embedded features, which require bifurcation between debt and equity components. As a result, the Convertible Notes are accounted for as a liability. As of September 30, 2023, the estimated fair value of the Convertible Notes was approximately $51.4 million.

The net carrying amount of the Convertible Note were as follows:

	September 30, 2023	December 31, 2022
Original principal	$ 50,000	$ —
Paid in kind (PIK) interest	1,537	—
Unamortized debt discount	(566)	—
Unamortized debt issuance costs	(2,056)	—
Total	$ 48,915	$ —

Milestone Pharmaceuticals Inc.
Notes to Condensed Consolidated Financial Statements
For the Three and Nine Months Ended September 30, 2023 and 2022 (Unaudited)
(in thousands of US dollars, except where noted and for share and per share data)

The following table presents the total amount of interest cost recognized relating to the 2029 Convertible Notes (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Contractual interest expense	$ 762	$ —	$ 1,537	$ —
Amortization of debt discount	16	—	34	—
Amortization of debt issuance costs	63	—	126	—
Total interest expense	$ 841	$ —	$ 1,697	$ —

6 Accounts Payable and Accrued Liabilities

Accounts payable and accrued liabilities are comprised of the following:

	September 30, 2023	December 31, 2022
Trade accounts payable	$ 1,855	$ 2,263
Accrued compensation and benefits payable	2,426	2,573
Accrued research and development liabilities	2,051	404
Other accrued liabilities	1,252	404
Total	$ 7,584	$ 5,644

7 Shareholders' Equity

Authorized Share Capital

The Company has authorized and issued common shares, voting and participating, without par value, of which unlimited shares were authorized and 33,481,787 shares were issued and outstanding as of September 30, 2023.

As of September 30, 2023, there were 1,463,936 common shares available for issuance under the Employee Stock Purchase Plan, or the "ESPP". The Company has issued 142,006 shares of common stock pursuant to the ESPP as of September 30, 2023.

On March 22, 2023, the Company entered into an exchange agreement, or the "Exchange Agreement", with entities affiliated with RTW, or the "Exchanging Stockholders", pursuant to which the Company exchanged an aggregate of 1,059,000 shares of the Company's common shares owned by the Exchanging Stockholders for pre-funded warrants, or the Exchange Warrants, to purchase an aggregate of 1,059,000 common shares, with an exercise price of $0.001 per share and no expiration date. The Exchange Warrants are exercisable immediately and no additional cash consideration was rendered in exchange for the warrants. A holder of the Exchange Warrants (together with its affiliates and other attribution parties) may not exercise any portion of an Exchange Warrant to the extent that immediately prior to or after giving effect to such exercise the holder, together with its affiliates, would beneficially own more than 9.99% of the Company's outstanding common shares immediately after exercise, which percentage may be increased or decreased to any other percentage specified not in excess of 9.99% at the holder's election upon 61 days' notice to the Company subject to the terms of the Exchange Warrants.

Milestone Pharmaceuticals Inc.
Notes to Condensed Consolidated Financial Statements
For the Three and Nine Months Ended September 30, 2023 and 2022 (Unaudited)
(in thousands of US dollars, except where noted and for share and per share data)

Additional Paid-in Capital

The additional paid-in capital balances were as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Opening balance	$ 29,114	$ 20,090	$ 24,437	$ 15,711
Share-based compensation expense	2,872	2,380	7,657	6,905
Exercise of stock options	(28)	(29)	(136)	(175)
Closing balance	$ 31,958	$ 22,441	$ 31,958	$ 22,441

8 Share Based Compensation

Under the Company's 2019 Equity Incentive Plan (the "2019 Plan") and the Company's Stock Option Plan (the "2011 Plan"), unless otherwise decided by the Board of Directors, options vest and are exercisable as follows: 25% vest and are exercisable on the one year anniversary of the grant date and one thirty-sixth ($1/36^{th}$) of the remaining options vest and are exercisable each month thereafter, such that options are vested in full on four-year anniversary of the grant date.

On January 1, 2023 and on January 1, 2022, the number of the Company's common shares reserved for issuance under the 2019 Plan increased by 1,371,440 and 1,195,902 common shares, respectively. Further, on July 5, 2022, the number of the Company's common shares reserved for issuance under the 2019 Plan increased by 1,000,000 common shares. In addition, 125,323 options have been forfeited under the 2011 Plan since the adoption of the 2019 Plan and have become available for issuance under the 2019 Plan. As of September 30, 2023, 561,000 of previously issued options had been cancelled under the 2019 Plan and were available for future grants. As of September 30, 2023, there were 8,182,946 common shares available for issuance under the 2019 Plan, of which 1,644,623 common shares were available for future grants.

On November 10, 2021, the Company established a 2021 Inducement Plan (the "Inducement Plan") through the granting of awards. This 2021 Inducement Plan is intended to help the Company provide an inducement material for certain individuals to enter into employment with the Company, incentives for such persons to exert maximum efforts for the success of the Company and provide a means by which employees may benefit from increases in value of the common shares. As of September 30, 2023, there were 1,000,000 shares available for issuance under the 2021 Inducement Plan, of which 497,000 shares were available for future grants.

On July 15, 2022, the Company offered an ESPP, in which participation is available to substantially all of our employees in the United States and Canada who meet certain service eligibility requirements. On January 1, 2023 the number of common shares reserved for issuance under the ESPP increased by 342,860 shares. As of September 30, 2023, the Company has 1,463,936 common shares available for issuance under the ESPP. As of September 30, 2023, the Company has issued 142,006 shares of common stock pursuant to the ESPP.

Milestone Pharmaceuticals Inc.
Notes to Condensed Consolidated Financial Statements
For the Three and Nine Months Ended September 30, 2023 and 2022 (Unaudited)
(in thousands of US dollars, except where noted and for share and per share data)

The total outstanding and exercisable options from the 2011 Plan, 2019 Plan and Inducement Plan as of September 30 were as follows:

	2023				
	Number of shares				Weighted average exercise price
	2019 Plan	Inducement Plan	2011 Plan	Total	
Outstanding at beginning of year - 2011 Plan	—	—	1,802,672	1,802,672	$ 2.05
Outstanding at beginning of year - 2019 Plan	5,314,312	—	—	5,314,312	8.35
Outstanding at beginning of year - Inducement Plan	—	503,000	—	503,000	6.41
Granted - 2019 Plan	1,867,400	—	—	1,867,400	3.62
Exercised - 2019 Plan	(7,000)	—	—	(7,000)	3.74
Exercised - 2011 Plan	—	—	(105,779)	(105,779)	1.52
Forfeited - 2019 Plan	(87,861)	—	—	(87,861)	6.28
Expired - 2019 Plan	(58,617)	—	—	(58,617)	11.52
Expired - 2011 Plan	—	—	(343)	(343)	0.92
Cancelled - 2019 Plan	(561,000)	—	—	(561,000)	21.73
Outstanding at end of period	6,467,234	503,000	1,696,550	8,666,784	$ 5.13
Outstanding at end of period - Weighted average exercise price	$ 5.83	$ 6.41	$ 2.08		
Exercisable at end of period	2,972,614	190,396	1,696,550	4,859,560	$ 5.25
Exercisable at end of period - Weighted average exercise price	$ 6.98	$ 6.42	$ 2.08		

	2022				
	Number of shares				Weighted average exercise price
	2019 Plan	Inducement Plan	2011 Plan	Total	
Outstanding at beginning of year - 2011 Plan	—	—	1,995,971	1,995,971	$ 2.07
Outstanding at beginning of year - 2019 Plan	3,759,834	—	—	3,759,834	9.51
Granted - 2019 Plan	1,748,700	—	—	1,748,700	5.78
Granted - Inducement Plan	—	523,000		523,000	6.37
Exercised - 2019 Plan	(15,089)	—	—	(15,089)	3.92
Exercised - 2011 Plan	—	—	(114,225)	(114,225)	1.38
Forfeited - 2019 Plan	(17,950)	—	—	(17,950)	14.31
Forfeited - 2011 Plan	—	—	(19,387)	(19,387)	9.42
Expired - 2011 Plan	—	—	(1,121)	(1,121)	0.96
Outstanding at end of period	5,475,495	523,000	1,861,238	7,859,733	$ 6.70
Outstanding at end of period - Weighted average exercise price	$ 8.32	$ 6.37	$ 2.04		
Exercisable at end of period	2,219,125	—	1,831,482	4,050,607	$ 6.28
Exercisable at end of period - Weighted average exercise price	$ 9.79	—	$ 2.01		

The weighted average remaining contractual life was 7.5 and 7.8 years for outstanding options as of September 30, 2023 and 2022, respectively. The weighted average remaining contractual life was 6.4 and 6.7 years for vested options, as of September 30, 2023 and 2022, respectively.

There was $13.2 million and $18.6 million of total unrecognized compensation cost related to non-vested share options as of September 30, 2023 and 2022, respectively. The share options are expected to be recognized over a remaining weighted average vesting period of 2.4 years and 2.5 years as of September 30, 2023 and 2022, respectively. For the three and nine months ended September 30, 2023, there were 561,000 shares cancelled under the 2019 plan, which resulted in additional share-based compensation expense of $0.6 million.

Milestone Pharmaceuticals Inc.
Notes to Condensed Consolidated Financial Statements
For the Three and Nine Months Ended September 30, 2023 and 2022 (Unaudited)
(in thousands of US dollars, except where noted and for share and per share data)

Options granted are valued using the Black-Scholes option pricing model. Amortization of the fair value of the options over vesting years has been expensed and credited to additional paid-in capital in shareholders' equity.

The non-vested options as of September 30 were as follows:

	2023				
	Number of options				Weighted average fair value
	2019 Plan	Inducement Plan	2011 Plan	Total	
Non-vested share options at beginning of year - 2011 Plan	—	—	2,126	2,126	$ 6.64
Non-vested share options at beginning of year - 2019 Plan	2,923,763	—	—	2,923,763	5.30
Non-vested share options at beginning of year - Inducement Plan	—	503,000	—	503,000	4.84
Granted - 2019 Plan	1,867,400	—	—	1,867,400	2.87
Vested, outstanding 2011 Plan	—	—	(2,126)	(2,126)	6.64
Vested, outstanding 2019 Plan	(1,231,712)	—	—	(1,231,712)	6.09
Vested, outstanding Inducement Plan	—	(190,396)	—	(190,396)	4.85
Forfeited - 2019 Plan	(64,831)	—	—	(64,831)	4.08
Non-vested share options at end of period	3,494,620	312,604	—	3,807,224	$ 3.83
Non-vested share options at end of period - Weighted average fair value	$ 3.74	$ 4.84	$ —		

	2022				
	Number of options				Weighted average fair value
	2019 Plan	Inducement Plan	2011 Plan	Total	
Non-vested share options at beginning of year - 2011 Plan	—	—	200,639	200,639	$ 1.86
Non-vested share options at beginning of year - 2019 Plan	2,665,518	—	—	2,665,518	6.39
Granted - 2019 Plan	1,748,700	—	—	1,748,700	4.37
Granted - Inducement Plan	—	523,000	—	523,000	4.81
Vested, outstanding 2011 Plan	—	—	(170,883)	(170,883)	1.76
Forfeited - 2019 Plan	(8,731)	—	—	(8,731)	6.27
Vested, outstanding 2019 Plan	(1,149,117)	—	—	(1,149,117)	5.99
Non-vested share options at end of period	3,256,370	523,000	29,756	3,809,126	$ 5.34
Non-vested share options at end of period - Weighted average fair value	$ 5.45	$ 4.81	$ 2.44		

The fair value of share-based payment transactions is measured using Black-Scholes valuation model. This model also requires assumptions, including expected option life, volatility, risk-free interest rate and dividend yield, which greatly affect the calculated values.

The fair value of options granted for the 2011 Plan, 2019 Plan and Inducement Plan were estimated using the Black-Scholes option pricing model, resulting in the following weighted average assumptions for the options granted:

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Exercise price	$ 3.14	$ 6.94	$ 3.62	$ 5.91
Share price	$ 3.14	$ 6.94	$ 3.62	$ 5.91
Volatility	98 %	93 %	98 %	91 %
Risk-free interest rate	4.09 %	2.94 %	3.92 %	2.41 %
Expected life	6.08 years	5.75 years	6.00 years	6.03 years
Dividend	0 %	0 %	0 %	0 %

Milestone Pharmaceuticals Inc.
Notes to Condensed Consolidated Financial Statements
For the Three and Nine Months Ended September 30, 2023 and 2022 (Unaudited)
(in thousands of US dollars, except where noted and for share and per share data)

Expected volatility is determined using comparable companies for which the information is publicly available. The risk-free interest rate is determined based on the U.S. sovereign rates benchmark in effect at the time of grant with a remaining term equal to the expected life of the option. Expected option life is determined based on the simplified method as the Company does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term. The simplified method is an average of the contractual term of the options and its ordinary vesting period. Dividend yield is based on the share option's exercise price and expected annual dividend rate at the time of grant.

The Company recognized share-based compensation expense as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Administration	$ 1,546	$ 1,891	$ 4,051	$ 3,683
Research and development	900	349	2,526	2,302
Commercial activities	426	140	1,080	920
Total	$ 2,872	$ 2,380	$ 7,657	$ 6,905

9 Net Loss Per Share

Basic net loss per common share is determined by dividing net loss applicable to common shareholders by the weighted average number of common shares and pre-funded warrants outstanding during the period.

For the three and nine months ended September 30, 2023 and 2022, the Company was in a net loss position. Dilutive net loss per common share is determined by dividing net loss applicable to common shareholders by the weighted average number of common shares and shares issuable upon exercise of pre-funded warrants outstanding during the period. In addition to the conversion feature on the 2029 Convertible Notes described above, which the Company reviewed and concluded would be anti-dilutive due to the facts surrounding the feature, the following potentially dilutive securities have also been excluded from the computation of diluted weighted average shares outstanding as of September 30, as they would be anti-dilutive:

	2023	2022
Share options	8,666,784	7,859,733

Amounts above reflect the common share equivalents of the noted instruments.

10 Royalty Purchase Agreement

On March 27, 2023, we entered into a purchase and sale agreement, or the "Royalty Purchase Agreement", with RTW and certain of its affiliates.

Pursuant to the Royalty Purchase Agreement, RTW agreed to purchase, following the U.S. Food and Drug Administration approval of etripamil (subject to certain conditions), in exchange for a purchase price of $75.0 million, the right to receive a tiered quarterly royalty payments, or the "Royalty Interest", on the annual net product sales of etripamil in the United States in an amount equal to: (i) 7%, or the "Initial Tier Royalty", of annual net sales up to $ 500 million, (ii) 4% of annual net sales greater than $500 million and less than or equal to $ 800 million, and (iii) 1% of annual net sales greater than $800 million. If certain revenue thresholds for aggregate annual net sales are not met, the Initial Tier Royalty will increase to 9.5% beginning on January 1 of the following calendar year until a subsequent sales threshold is attained, at which time the Initial Tier Royalty would revert back to 7%.

Based on the Company's assessment of the terms and conditions under the Royalty Purchase Agreement, there is no accounting recognition required in these interim financial statements.

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

The following information should be read in conjunction with the unaudited interim condensed consolidated statements and the notes thereto included in this Quarterly Report on Form 10-Q and the audited annual consolidated financial statements and the notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2022, which was filed with the Securities and Exchange Commission, or SEC, on March 29, 2023. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed in "Risk Factors" and in other parts of this Quarterly Report on Form 10-Q.

Company Overview

We are a biopharmaceutical company focused on the development and commercialization of innovative cardiovascular medicines. Our lead product candidate, etripamil, is a novel and potent calcium channel blocker that we designed as a rapid-onset nasal spray to be self-administered by patients. We are developing etripamil for the treatment of specific arrhythmias with a lead indication to treat paroxysmal supraventricular tachycardia, or PSVT, and an indication to treat atrial fibrillation with rapid ventricular rate, or AFib-RVR.

On October 23, 2023, we submitted the New Drug Application, or NDA, to the U.S. Food and Drug Administration, or FDA, seeking approval to sell and market etripamil for the treatment of paroxysmal supraventricular tachycardia, or PSVT. PSVT is a condition characterized by an abnormality in the electrical system of the heart causing patients to have unexpected, often severely symptomatic episodes of rapid heart rate. Patients experiencing episodes of supraventricular tachycardia, or SVT, often experience symptoms including palpitations, sweating, chest pressure or pain, shortness of breath, sudden onset of fatigue, lightheadedness or dizziness, fainting and anxiety. Calcium channel blockers have long been approved for the treatment of PSVT as well as other cardiac conditions. Calcium channel blockers available in oral form are sometimes used prophylactically to attempt to control the frequency and duration of future episodes of SVT. For treatment of episodes of SVT, approved calcium channel blockers are administered intravenously under medical supervision, usually in the emergency department. We believe the combination of convenient nasal-spray delivery and rapid-onset of etripamil has the potential to shift the current treatment paradigm for episodes of SVT away from the burdensome and costly emergency department setting. If approved, we believe that etripamil will be the first self-administered therapy for the rapid termination of episodes of SVT wherever and whenever they occur.

On October 17, 2022, we announced positive and statistically significant topline efficacy and safety data from our Phase 3 RAPID clinical trial evaluating etripamil in patients with PSVT. These results from the RAPID trial were presented on November 7, 2022, as a Late-Breaking Clinical Trial at the American Heart Association Scientific Sessions (Chicago, IL). These results were also published in the *Lancet* on July 8, 2023. RAPID, our multi-center, randomized, double-blind, placebo-controlled, event-driven Phase 3 trial, enrolled 706 patients across clinical sites in North America and Europe. Patients were randomized 1:1 using a self-administered regimen consisting of a first dose of study drug, and a repeat dose 10 minutes later if symptoms persisted. Self-administration was prompted by a patient's symptoms and performed in the at-home setting without medical supervision. The RAPID trial achieved its primary endpoint with etripamil demonstrating a highly statistically significant and clinically meaningful difference in time to SVT conversion as compared to placebo. A Kaplan Meier analysis demonstrated a significantly greater proportion of patients who took etripamil converted to sinus rhythm within thirty minutes compared to patients that took placebo (64.3% vs. 31.2%; hazard ratio, or HR, 2.62; 95% CI 1.66, 4.15; $p<0.001$). By 90 minutes post-study drug administration, 80.6% of patients taking etripamil converted to sinus rhythm compared to 60.7% of patients taking placebo (HR = 1.93; 95% CI 1.349, 2.752; $p<0.001$). Statistically significant reductions in time to conversion in patients who took etripamil were evident early and persisted throughout the observation window of the trial compared to patients that took placebo. The median time-to-conversion for patients in the RAPID trial who self-administered etripamil was 17.2 minutes compared to 53.3 minutes for patients taking placebo. The safety and tolerability data from the RAPID trial supports the potential self-administration of etripamil, with findings consistent with those observed in prior trials. The most common randomized-treatment emergent adverse events, or RTEAEs, and adverse events, or AEs, occurred within 24 hours of etripamil administration and were related to the nasal local administration site. Overall, the majority of RTEAEs were reported as mild (68%) or moderate (31%). No serious adverse effects related to etripamil were reported.

The use of additional medical interventions and emergency department utilization were key secondary endpoints for both the RAPID and NODE-301 trials. In a pre-planned pooled analysis across both trials, patients who self-administered etripamil sought additional medical interventions 43% less frequently (15% vs. 25%; p=0.013) and had 39% fewer visits to the emergency department (14% vs. 22%; p=0.035) than patients in the placebo arm.

The NODE-301 trial was a placebo-controlled Phase 3 safety and efficacy trial. NODE-301 enrolled 431 patients across 65 sites in the United States and Canada. Although the trial did not meet its primary endpoint of time to conversion of SVT to sinus rhythm compared to placebo over the five-hour period following study drug administration in which patients wore a cardiac monitor, both prespecified and post hoc analyses at earlier time periods, namely at 30 minutes, showed significant treatment effects in favor of etripamil. For example, in a post hoc analysis of the NODE-301 data, 54% of patients taking etripamil vs. 35% of placebo patients converted to sinus rhythm within 30 minutes (HR 1.87, p=0.02). The safety and tolerability data from the NODE-301 trial support the potential self-administration of etripamil, with the most common RTEAEs and adverse events occurring within 24 hours of etripamil administration and relating to the nasal local administration site. Overall, the majority of RTEAEs were reported as mild (85%) to moderate (15%). No serious AEs related to etripamil were reported. After reviewing the data from NODE-301 with the FDA in July 2020, the FDA provided guidance that an analysis period shorter than five hours would be appropriate to measure the efficacy of etripamil. The FDA indicated that two trials, the RAPID and NODE-301 trials could potentially fulfill the efficacy requirement for an NDA for etripamil for the treatment of PSVT, both using time to conversion to sinus rhythm over the first 30 minutes with a target p-value of less than 0.05 as the primary endpoint. These results from the Phase 3 NODE-301 Part 1 and RAPID studies were featured in a poster session on May 9, 2023, at the ISPOR Annual Meeting in Boston, Massachusetts.

The NODE-303 trial was a Phase 3, multi-center, open-label safety trial, evaluating primarily the safety of etripamil when self-administered without medical supervision over multiple, separate SVT episodes. After consultation with FDA, we concluded that the test dose procedure was an unnecessary step for the self-administration of etripamil and it was not included in the requirements of the NODE-303 safety trial. The NODE-303 trial was initiated with an etripamil 70 mg single-dose regimen and the 70 mg optional repeat-dose regimen was introduced into the trial starting in the second half of 2021 following FDA acceptance of the protocol amendment. The trial was sized in order to provide safety data that we believed, when combined with data from remainder of the development program, would fulfill the safety and exposure dataset needed support an NDA filing. Following the results from the RAPID trial, initially obtained in October 2022, and subsequent discussions with the FDA which included the discussion of the total exposures to etripamil in the development program to date and guidance regarding the sufficiency of the safety dataset for submission of an NDA for PSVT, we closed the NODE-303 and RAPID extension studies, prepared our NDA package and submitted the package to the FDA on October 23, 2023.

AFib RVR Phase 2 Trial

On November 11, 2023, we announced positive Phase 2 data that show etripamil nasal spray resulted in rapid and statistically superior ventricular rate reduction and improved symptom-relief in patients with AFib-RVR compared to placebo. Safety and tolerability reported in the 56-patient safety population who received etripamil was generally consistent with that observed in our PSVT program discussed above. We believe this data supports further development of self-administered etripamil for the treatment of AFib-RVR.

The randomized, placebo controlled Phase 2 ReVeRA trial enrolled 87 patients and dosed 56 patients aged 18 years and older with AFib who experienced a ventricular rate of 110 or more beats per minute (bpm) prior to receiving etripamil nasal spray. The trial was designed to assess the reduction in ventricular rate (primary endpoint), the time to achieve maximum reduction in ventricular rate, duration of effect, and patient satisfaction with treatment using the Treatment Satisfaction Questionnaire 9 (TSQM-9) patient reported outcome (PRO) tool (key secondary endpoints).

Data from ReVeRA trial showed that delivery of etripamil nasal spray significantly and rapidly reduced ventricular rate, consistent with the drug's pharmacologic profile. Etripamil achieved the primary endpoint with high statistical significance with patients experiencing a ventricular rate reduction of 29.91 bpm (95% confidence interval: -40.31, -19.52; p<0.0001) in the etripamil arm compared to placebo. The maximum reduction in rate reported by a patient taking etripamil was 34.97 bpm. The median time to maximum reduction in ventricular rate was 13 minutes in patients taking etripamil.

ReVeRA Primary Endpoint – Maximum Reduction in Ventricular Rate from Baseline

PRIMARY ENDPOINT: Maximum Reduction in VR from Baseline	**Placebo NS,** N=25[1]	**Etripamil NS, 70 mg,** N=24[1]
Mean (95% CI), bpm	-5.06 (-7.44, -2.67)	-34.97 (-45.13, -24.87)
Difference in means (95% CI), bpm	--	-29.91 (-40.31, -19.52)
p-value[2]	**--**	**<0.0001**

[1] Efficacy population (all randomized patients receiving study drug remaining in atrial fibrillation with adequately diagnostic ECG recordings for at least 60 min post drug)
[2] From ANCOVA; calculations adjust for variance in baseline
Bpm = beats per minute, CI = confidence interval, NS = nasal spray, VR = ventricular rate

A greater number of patients taking etripamil achieved a ventricular rate of less than 100 bpm (58.3%) than those taking placebo (4%). Furthermore, 67% of patients taking etripamil achieved ventricular rate reductions of more than 20% and 96% of patients receiving etripamil achieved more than 10% in ventricular rate reductions in the first 60 minutes compared to 0% and 20% in patients taking placebo, respectively. Using the TSQM-9, compared to placebo, patients treated with etripamil demonstrated significant improvements in two satisfaction ratings: effectiveness ($p<0.0001$) and relief of symptoms ($p=0.0002$).

Treatment-emergent serious adverse events, or TESAEs, were rare, with two occurring in one patient in the etripamil arm (3.7%) and four occurring in two patients in the placebo arm (6.9%). The TESAEs in the etripamil arm (transient severe bradycardia and syncope, assessed as due to hyper-vagotonia occurred in a patient with a history of vagal events, and fully resolved by placing the patient supine and was without sequelae. The most common (≥ 5%) adverse events were mild or moderate in intensity and included nasal discomfort, rhinorrhea, increased lacrimation, throat irritation and dizziness.

An estimated five million Americans suffer from AFib, a common arrhythmia marked by an irregular, disruptive and often rapid heartbeat. The Centers for Disease Control projects the prevalence of AFib will grow to an estimated 10 million patients by 2030. A subset of AFib patients experience episodes of abnormally high heart rate most often accompanied by palpitations, shortness of breath, dizziness, and weakness. While these episodes, known as AFib-RVR, may be treated by oral calcium channel blockers and/or beta blockers, patients frequently seek acute care in the emergency department to resolve symptoms. In 2016, nearly 800,000 patients were admitted to the emergency department due to AFib symptoms where treatment includes medically supervised intravenous administration of calcium channel blockers or beta blockers, or electrical cardioversion.

Planned Clinical Development for AFib-RVR

In June 2023, we met with the FDA for a pre-IND meeting. In this meeting, we received guidance from the FDA on a potential development path for etripamil in AFib-RVR. The FDA agreed that to gain a labelled indication via supplemental NDA (sNDA), a Phase 3, randomized, placebo controlled, double blind clinical trial using a dosing regimen with self-administration of etripamil in an at-home setting could be acceptable with the support of the already existing safety database from our PSVT trials. The primary endpoint can be the reduction of ventricular rate, and the primary analysis would be on the intent to treat (ITT) population. In addition, the study would have to show statistical significance ($p<0.05$) on the key secondary endpoint of symptom relief as a patient benefit, also in the ITT population. The secondary endpoint could use a patient-reported outcomes measure (PRO) and the application of a 7-point anchored scale was discussed with the FDA. Based on our discussion, we believe a 1-unit improvement in the target population (that is, those patients treating an ECG-confirmed episode of AFib-RVR) could satisfy the clinical benefit requirement.

In the first quarter of 2024, we plan to propose to the FDA a Phase 3 clinical study for AFib-RVR conducted in the at-home setting consisting of patients with a history of symptomatic episodes and using a repeat-dose regimen of 70mg per dose similar to what was studied in the RAPID trial in patients with PSVT. Our target population would be patients with verified AFib-RVR, and the ITT population would be all patients self-administering the study drug for perceived AFib-RVR. The primary endpoint being considered is the mean change from baseline ventricular rate to nadir ventricular rate for patients treated with etripamil vs placebo, as was studied in the ReVeRA trial. Our key secondary endpoint would be based on a PRO acceptable to the FDA and the same or similar to ones we have used in our PSVT and AFib-RVR programs. We estimate that the study size would be approximately 150-200 unique patients treating an episode. This study may begin mid-2024 and have an approximate two-year duration to report top-line data.

Operations Overview

Since the initial commencement of our operations, we have devoted substantially all of our resources to performing research and development activities in support of our product development efforts, hiring personnel, raising capital to support and expand such activities, providing general and administrative support for these operations and, more recently, preparing for commercialization. We operate our business using a significant outsourcing model. As such, our team is composed of a relatively smaller core of employees who direct a significantly larger number of team members who are outsourced in the forms of vendors and consultants to enable execution of our operational plans. We do not currently have any products approved for sale, and we continue to incur significant research and development and general administrative expenses related to our operations.

Since inception, we have incurred significant operating losses. For the three months ended September 30, 2023 and 2022, we recorded net losses of $15.1 million and $14.6 million, respectively. For the nine months ended September 30, 2023 and 2022, we recorded net losses of $46.1 million and $45.2 million, respectively. As of September 30, 2023, we had an accumulated deficit of $312.4 million. We expect to continue to incur significant losses for the foreseeable future. We anticipate that a substantial portion of our capital resources and efforts in the foreseeable future will be focused on completing the necessary development activities required for obtaining regulatory approval and preparing for potential commercialization of our product candidates. We had $9.9 million of cash and cash equivalents and $65.9 million of short-term investments at September 30, 2023.

We expect to continue to incur significant expenses and increasing operating losses for at least the next several years. Our net losses may fluctuate significantly from period to period, depending on the timing of our planned clinical trials and expenditures on other research and development activities. We expect our expenses will increase over time as we:

- continue our ongoing and planned development of etripamil, including our Phase 3 and potentially future Phase 4 clinical trials of etripamil for the treatment of PSVT and future Phase 3 clinical trials of etripamil for the treatment of AFib-RVR;
- seek marketing approvals for etripamil for the treatment of PSVT, AFib-RVR and other cardiovascular indications;
- establish a sales, marketing, manufacturing and distribution capability, either directly or indirectly through third parties, to commercialize etripamil or any future product candidate for which we may obtain marketing approval;
- build a portfolio of product candidates through development, or the acquisition or in-license of drugs, product candidates or technologies;
- initiate preclinical studies and clinical trials for etripamil for any additional indications we may pursue, including the clinical trials for the treatment of atrial fibrillation and rapid ventricular rate as well as other areas of unmet medical need, and for any additional product candidates that we may pursue in the future;
- maintain, protect and expand our intellectual property portfolio;

- hire additional clinical, regulatory and scientific personnel;
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts; and
- incur additional legal, accounting, insurance and other expenses associated with operating as a public company.

The Macroeconomic Climate

The recent trends towards rising inflation may also materially adversely affect our business and corresponding financial position and cash flows. Inflationary factors, interest rates and overhead costs may adversely affect our operating results. Rising interest and inflation rates also present a recent challenge impacting the U.S. economy and could make it more difficult for us to obtain traditional financing on acceptable terms, if at all, in the future., the Russia-Ukraine war, unrest and/or further escalation in Israel and Gaza, recent banking instabilities and other US geopolitical issues affecting other territories and employee availability and wage increases, and economic markets all of which may result in additional stress on our working capital resources.

Components of Results of Operations

Revenues

We have not generated any revenues from product sales to date and we do not expect to generate revenues from product sales in the near future. We recorded no revenue for the three months ended September 30, 2023 and $1.0 million in revenue during the nine months ended September 30, 2023. This revenue is due to a milestone reached as a result of the successful initiation of a Phase 1 Clinical Trial of the product by or on behalf of Ji Xing for the treatment of PSVT in the Territory. We recorded $1.5 million in revenue for the three and nine months ended September 30, 2022. This revenue was related to a milestone reached as a result of the first patient dosed in a Phase 3 Clinical Trial for the treatment of PSVT in the Territory.

Research and Development Expenses

Research and development expenses consist primarily of salaries and fees paid to external service providers and also include personnel costs, including share-based compensation expense and other related compensation expenses. We expense research and development costs in the periods in which they are incurred. Costs for certain development activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our vendors, collaborators and third-party service providers.

To date, substantially all of our research and development expenses have been related to the preclinical and clinical development of etripamil. As we advance etripamil or other product candidates for other indications, we expect to allocate our direct external research and development costs across each of the indications or product candidates. Further, we expect our research and development costs to increase for the development of etripamil in atrial fibrillation with rapid ventricular rate, and we expect our research and development expenses related to the development of etripamil for PSVT decrease as a percentage of our total research and development expenses.

The process of conducting the necessary clinical research to obtain regulatory approval is costly and time-consuming and is subject to uncertainties and delays. As a result of the uncertainties discussed above, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of our product candidates, if at all.

We recognize the benefit of Canadian research and development tax credits as a reduction of research and development costs for fully refundable investment tax credits. General and administrative expenses include personnel and related compensation costs, expenses for outside professional services, lease expense, insurance expense and other general

administrative expenses. Personnel costs consist of salaries, bonuses, benefits, related payroll taxes and share-based compensation. Outside professional services consist of legal, accounting and audit services and other consulting fees.

We expect to continue to incur expenses as a public company, including expenses related to compliance with the rules and regulations of the Securities and Exchange Commission, or SEC, and those of any national securities exchange on which our securities are traded, additional insurance expenses, investor relations activities, and other administrative and professional services.

Commercial Expenses

Commercial expenses consist primarily of personnel and related compensation costs, market and health economic research, and market development activities for PSVT and, to a lesser extent, AFib-RVR. The focus of these expenses is three-fold: first, we want to leverage rigorous primary and secondary research to fully understand our target disease states from the perspective of the patient, healthcare provider, and payer; second, we want to understand and document the burden of disease posed by PSVT and AFib-RVR from an epidemiology, healthcare resource use, and cost perspective; and third, we want to engage our target patient, physician, and payer stakeholders with evidence-based and compliant educational materials that serve to increase the awareness and understanding of the impact of PSVT and AFib-RVR on patients and the overall healthcare system.

We anticipate our commercial expenses will increase as we invest in the infrastructure, personnel, and operational expenses required to launch our first product in the United States, if the FDA approves the NDA.

Interest Income

Interest income primarily consists of interest income from our cash equivalents and short-term investments.

Interest Expense

Interest expense primarily consists of contractual debt interest expense and the amortization of debt costs.

Results of Operations

Comparison of the Three and Nine Months Ended September 30, 2023 and 2022

The following table summarizes our results of operations and changes:

	Three months ended September 30,			
(in thousands)	**2023**	**2022**	**$ Change**	**% Change**
Revenue	$ —	$ 1,500	(1,500)	0.0%
Operating expenses				
Research and development, net of tax credits	$ 6,721	$ 9,826	$ (3,105)	(31.6)%
General and administrative	4,227	4,034	193	4.8%
Commercial	4,412	2,670	1,742	65.2%
Total operating expenses	15,360	16,530	(1,170)	(7.1)%
Loss from operations	(15,360)	(15,030)	(330)	2.2%
Interest income	1,120	474	646	136.3%
Interest expense	(841)	—	(841)	100.0%
Net loss	$ (15,081)	$ (14,556)	$ (525)	3.6%

(in thousands)	Nine months ended September 30, 2023	2022	$ Change	% Change
Revenue	$ 1,000	$ 1,500	$ (500)	100.0%
Operating expenses				
Research and development, net of tax credits	25,600	29,251	(3,651)	(12.5)%
General and administrative	12,561	11,595	966	8.3%
Commercial	10,137	6,537	3,600	55.1%
Total operating expenses	48,298	47,383	915	1.9%
Loss from operations	(47,298)	(45,883)	(1,415)	3.1%
Interest income	2,921	672	2,249	334.7%
Interest expense	(1,697)	—	(1,697)	100.0%
Net loss	(46,074)	(45,211)	(863)	1.9%

Revenue

We recorded no revenue for the three months ended September 30, 2023 and $1.0 million in revenue during the nine months ended September 30, 2023. This revenue was the result of having reached a milestone pursuant to our License and Collaboration Agreement, dated May 15, 2021, with Ji Xing Pharmaceuticals Limited (such party “Ji Xing” and , such agreement, the “Ji Xing License Agreement”) due upon the successful initiation of a Phase 1 Clinical Trial of a pharmaceutical product that uses a device to deliver etripamil by nasal spray by or on behalf of Ji Xing for the treatment of PSVT in the People’s Republic of China (the “Territory”), including mainland China, Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan.

We recorded $1.5 million in revenue for the three and nine months ended September 30, 2022. This revenue was related to a milestone reached as a result of the first patient dosed in a Phase 3 Clinical Trial for the treatment of PSVT in the Territory pursuant to the Ji Xing License Agreement.

Research and Development Expenses

The following table shows our research and development expenses by type of activity for the three and nine months ended September 30, 2023 and 2022, respectively.

(in thousands)	Three months ended September 30, 2023	2022	$ Change	% Change	Nine months ended September 30, 2023	2022	$ Change	% Change
Clinical	$ 3,157	$ 7,886	$ (4,729)	(60.0)%	$ 16,526	$ 23,704	$ (7,178)	(30.3)%
Drug manufacturing and formulation	2,111	1,389	722	52.0%	5,535	3,564	1,971	55.3%
Regulatory and other costs	1,539	688	851	123.7%	3,777	2,303	1,474	64.0%
Less: R&D tax credits	(86)	(137)	51	(37.2)%	(238)	(320)	82	(25.6)%
Total R&D expenses	$ 6,721	$ 9,826	$ (3,105)	(31.6)%	$ 25,600	$ 29,251	$ (3,651)	(12.5)%

Research and development expenses decreased by $3.1 million, or 31.6%, for the three months ended September 30, 2023 compared to the three months ended September 30, 2022. The decrease was primarily due to lower clinical expenses. This decrease in clinical expenses was driven by lower clinical development costs and clinical personnel-related costs as a result of the completion of phase 3 studies. The decrease in clinical costs was partially offset by an increase in drug manufacturing consulting costs, drug manufacturing personnel costs and regulatory consulting costs.

Research and development expenses decreased by $3.7 million, or 12.5%, for the nine months ended September 30, 2023 compared to the nine months ended September 30, 2022. The decrease was primarily due to lower clinical expenses driven by lower clinical development costs and clinical personnel-related costs as a result of the completion of phase 3 studies.

The decrease in clinical costs was partially offset by an increase in drug manufacturing consulting costs, drug manufacturing personnel costs, regulatory personnel costs and regulatory consulting costs.

We recognize the benefit of Canadian research and development tax credits as a reduction of research and development costs for fully refundable investment tax credits.

General and Administrative

General and administrative expenses remained consistent for the three months ended September 30, 2023 and the three months ended September 30, 2022.

General and administrative expenses increased by $1.0 million, or 8.3%, for the nine months ended September 30, 2023 compared to the nine months ended September 30, 2022. The primary contributor was an increase in personnel-related costs and consulting fees for general and administrative expenses.

Commercial

Commercial expenses increased by $1.7 million, or 65.2%, for the three months ended September 30, 2023, compared to the same period in 2022. This increase is a result of additional personnel and professional costs required to expand capabilities and operations in anticipation of potential commercialization.

Commercial expenses increased by $3.6 million, or 55.1%, for the nine months ended September 30, 2023, compared to the same period in 2022. This increase is a result of additional personnel and professional costs required to expand capabilities and operations in anticipation of potential commercialization.

We anticipate our commercial expenses will increase as we invest in the infrastructure, personnel and operational expenses required to launch our first product in the United States, if the FDA approves the NDA.

Interest Income

Interest income was $1.1 million and $0.5 million for the three months ended September 30, 2023 and 2022, respectively. Interest income was $2.9 million and $0.7 million for the nine-month periods ended September 30, 2023 and 2022, respectively. The increase in interest income was due to higher interest rates earned on investments in 2023 when compared to 2022.

Interest Expense

Interest expense was $0.8 million for the three months ended September 30, 2023 compared to no interest expense for the three months ended September 30, 2022. Interest expense was $1.7 million for the nine months ended September 30, 2023 compared to no interest expense for the nine months ended September 30, 2022. The increase in interest expense was due to the issuance of the 2029 Convertible Notes in the first quarter of 2023.

Liquidity and Capital Resources

Sources of Liquidity

We have incurred operating losses and experienced negative operating cash flows since our inception, and we anticipate continuing to incur losses for at least the next several years. As of September 30, 2023, we had cash, cash equivalents and short-term investments of $75.7 million and an accumulated deficit of $312.4 million.

On March 27, 2023, we entered into a purchase and sale agreement, or the Royalty Purchase Agreement, and a note purchase agreement, or the Note Purchase Agreement, with RTW Investments, LP and certain of its affiliates, or collectively, RTW.

On March 29, 2023, the Company closed the transaction contemplated by the Note Purchase Agreement and issued and sold the $50 million principal amount of 6.0% Convertible Senior Notes due 2029, or the 2029 Convertible Notes, to the holders in a private placement transaction.

The 2029 Convertible Notes are senior secured obligations and are guaranteed on a senior secured basis by our wholly owned subsidiary, Milestone Pharmaceuticals USA, Inc. Interest, at the annual rate of 6.0%, is payable quarterly in cash or, at our option, payable in kind for the first three years. The maturity date for the 2029 Convertible Notes will be March 31, 2029. The obligations under the 2029 Convertible Notes are secured by substantially all of our and our subsidiary guarantor's assets.

Each $1,000 of principal of the 2029 Convertible Notes (including any interest added thereto as payment in kind) is convertible into 191.0548 shares of our common shares, equivalent to an initial conversion price of approximately $5.23 per share, subject to customary anti-dilution and other adjustments. Subject to specified conditions, on or after March 27, 2027, the 2029 Convertible Notes are redeemable by us subject to certain conditions, at a redemption price equal to 100% of the principal amount of the 2029 Convertible Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

On July 29, 2020, we entered into an Open Market Sale Agreement SM, or the "Sales Agreement", with Jefferies LLC with respect to an at-the-market offering program, or the "ATM Program", under which the Company may issue and sell its common shares having an aggregate offering price of up to $50 million through Jefferies as its sales agent or principal. The common shares to be sold under the Sales Agreement, are offered and sold pursuant to our shelf registration statement on Form S-3 (File No. 333-239318), which was declared effective by the SEC on July 6, 2020. During 2022, we issued 361,236 shares under the Sales Agreement, resulting in net proceeds of $2.6 million (net of issuance costs of $0.1 million).

We expect that our operating plan, existing cash and cash equivalents and short-term investments to be sufficient to fund our operations for at least the next 12 months from the date of issuance of this 10-Q for the quarter ending September 30, 2023 and that there are no events or conditions that may cast substantial doubt on our ability to continue as a going concern for at least the next 12 months from the date of this filing.

Contingent future source of funding

Pursuant to the Royalty Purchase Agreement, RTW agreed to purchase, following U.S. Food and Drug Administration (FDA) approval of etripamil (subject to certain conditions), in exchange for a purchase price of $75.0 million, the right to receive a tiered quarterly royalty payments, or "royalty interest", on the annual net product sales of etripamil in the United States. This represents a contingent future source of funding, in order for the Company to receive the $75 million dollars, the closing conditions specified in the Royalty Purchase Agreement, which includes the Company receiving marketing approval from the FDA on or prior to September 30, 2025, must be met.

Funding Requirements

We use our cash primarily to fund research and development expenditures. We expect our research and development expenses to increase as we continue the development of etripamil and prepare to pursue regulatory approval. We expect to incur an increase in general and administrative expenses, and an increase in expenses related to commercial activities in 2023 as we focus our efforts on the clinical pathway and potential commercialization of etripamil. We expect to incur increasing operating losses for the foreseeable future as we continue the clinical development of our product candidate. At this time, due to the inherently unpredictable nature of clinical development, we cannot reasonably estimate the costs we will incur and the timelines that will be required to complete development, obtain marketing approval, and commercialize etripamil or any future product candidates, if at all. For the same reasons, we are also unable to predict when, if ever, we will generate revenue from product sales or whether, or when, if ever, we may achieve profitability. Clinical and preclinical development timelines, the probability of success, and development costs can differ materially from expectations.

In addition, we have exclusive development and commercialization rights for etripamil for all indications that we may pursue and as such have the potential to license development and or commercialization rights for etripamil to a potential partner in regions outside of Greater China. We plan to establish commercialization and marketing capabilities using a

direct sales force to commercialize etripamil in the United States. Outside of the United States, we are considering commercialization strategies that may include collaborations with other companies.

For other new product candidates, our efforts are focused on licensing development and/or commercialization rights from potential partners. In the case of either in-licensing or out-licensing, we cannot forecast when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development and commercialization plans and capital requirements.

The timing and amount of our operating expenditures will depend largely on:

- the timing, progress and results of our ongoing and planned clinical trials and other development activities of etripamil in PSVT, AFib-RVR and in other cardiovascular indications;
- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials of etripamil for additional indications or any future product candidates that we may pursue;
- our ability to establish additional collaborations on favorable terms, if at all;
- the ability of vendors and third-party service providers to accurately forecast expenses and deliver on expectations;
- the costs, timing and outcome of regulatory review of etripamil and any future product candidates;
- the costs and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution, for etripamil and any future product candidates for which we receive marketing approval;
- the revenue, if any, received from commercial sales of etripamil and any future product candidates for which we receive marketing approval;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims; and
- the extent to which we acquire or in-license other product candidates and technologies.

Until such time, if ever, as we can generate substantial revenue from product sales, we expect to fund our operations and capital funding needs through equity and/or debt financing. We may also consider entering into collaboration arrangements or selectively partnering for clinical development and commercialization. The sale of additional equity would result in additional dilution to our shareholders. The incurrence of debt financing would result in debt service obligations and the instruments governing such debt could provide for operating and financing covenants that restrict our operations or our ability to incur additional indebtedness or pay dividends, among other items. If we are not able to secure adequate additional funding, we may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible, and/or suspend or curtail planned programs. Any of these actions could materially and adversely affect our business, financial condition and results of operations.

Cash Flows

The following table summarizes our cash flows for the periods indicated:

	Nine months ended September 30,			
(in thousands)	**2023**	**2022**	**$ Change**	**% Change**
Net cash (used in) provided by:				
Operating activities	$ (36,628)	$ (39,607)	2,979	(7.5)%
Investing activities	(8,920)	(40,109)	31,189	(77.8)%
Financing activities	47,791	2,861	44,930	1570.4%
Net increase (decrease) in cash and cash equivalents during the period	$ 2,243	$ (76,855)	79,098	

Operating Activities

Net cash used in operating activities during the nine months ended September 30, 2023 was $36.6 million, which consisted primarily of a net loss of $46.0 million. The net loss was partially offset by a net cash increase of $0.1 million related to the change in assets and liabilities, non-cash charges of $7.7 million related to share-based compensation and non-cash interest charges of $1.5 million related to the convertible note.

Net cash used in operating activities during the nine months ended September 30, 2022 was $39.6 million, which consisted of a net loss of $45.2 million and a net decrease of $1.4 million in our operating assets and liabilities due to increases in prepaid expenses and other receivables and a decrease in accounts payable offset by non cash charges of $7.0 million related to share based compensation and depreciation expenses.

Investing Activities

In the nine months ended September 30, 2023 we acquired $95.8 million of short-term investments and we redeemed $87.0 million in short-term investments. In the nine months ended September 30, 2022 we acquired $63.0 million of short-term investments while we divested of $23.0 million.

Financing Activities

In the nine months ended September 30, 2023, our financing activities provided cash proceeds of $47.8 million. These proceeds were primarily a result of the $50 million received from the issuance of convertible notes under the Note Purchase Agreement, which was partially offset by $2.8 million in debt costs, and $0.6 million in cash proceeds from the exercise of share options and issuance of common shares under the employee stock purchase plan. In the nine months ended September 30, 2022, our financing activities provided a de minimis amount of proceeds from the exercise of share options. In August 2022, the Company issued and sold 361,236 common shares under the Sales Agreement for proceeds of $2.6 million (net of issuance costs of $0.1 million).

We have not entered into off-balance sheet arrangements.

Contractual Obligations

With the exception of the 2029 Convertible Notes outlined above, during the nine months ended September 30, 2023, there were no material changes to our contractual obligations and commitments described under Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K, filed with the SEC on March 29, 2023.

Critical Accounting Estimates

Our management’s discussion and analysis of our financial condition and results of operations is based on our unaudited interim consolidated financial statements as of September 30, 2023, which have been prepared in accordance with United

States generally accepted accounting principles, or U.S. GAAP and on a basis consistent with those accounting principles followed by us. The preparation of these consolidated financial statements requires our management to make judgments and estimates that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Significant estimates and judgments include, but are not limited to:

- Estimates of the percentage of work completed of the total work over the life of the individual trial in accordance with agreements established with CROs, CMOs and clinical trial sites which in turn impact the research & development expenses.

- Estimate of the grant date fair value share options granted to employees, consultants and directors, and the resulting share-based compensation expense, using the Black-Scholes option-pricing model.

Accordingly, actual results may differ from these judgments and estimates under different assumptions or conditions and any such differences may be material. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

a) Research & Development Expenses — Accruals

Research and development costs are charged against income in the period of expenditure. Our research and development costs consist primarily of salaries and fees paid to CROs and to CMOs.

Clinical trial expenses include direct costs associated with CROs, direct CMO costs for the formulation and packaging of clinical trial material, as well as investigator and patient-related costs at sites at which our trials are being conducted. Direct costs associated with our CROs and CMOs are generally payable on a time-and-materials basis, or when milestones are achieved. The invoicing from clinical trial sites can lag several months. We record expenses for our clinical trial activities performed by third parties based upon estimates of the percentage of work completed of the total work over the life of the individual trial in accordance with agreements established with CROs and clinical trial sites. We determine the estimates through discussions with internal clinical personnel, CROs and CMOs as to the progress or stage of completion of trials or services and the agreed-upon fee to be paid for such services based on facts and circumstances known to us as of each consolidated balance sheet date. The actual costs and timing of clinical trials are highly uncertain, subject to risks and may change depending upon a number of factors, including our clinical development plan. If the actual timing of the performance of services of the level of effort varies from the estimate, we will adjust the accrual accordingly. Adjustments to prior period estimates have not been material. We recognize the benefit of Canadian research and development tax credits as a reduction of research and development costs for fully refundable investment tax credits and as a reduction of income taxes for investment tax credits that can only be claimed against income taxes payable when there is reasonable assurance that the claim will be recovered.

b) Share-Based Compensation

We recognize compensation costs related to share options granted to employees, consultants and directors based on the estimated fair value of the awards on the date of grant. We estimate the grant date fair value, and the resulting share-based compensation expense, using the Black-Scholes option-pricing model. This Black-Scholes option pricing model uses various inputs to measure fair value, including estimated fair value of our underlying common shares at the grant date, expected term, estimated volatility, risk-free interest rate and expected dividend yields of our common shares. The estimated volatility creates a critical estimate because we have not been a public company long enough to demonstrate our own historical volatility. The grant date fair value of the share-based awards is recognized on a straight-line basis over the requisite service periods, which are generally the vesting period of the respective awards. Forfeitures are accounted for as they occur.

Recent Accounting Pronouncements

Refer to Note 2, “Summary of Significant Accounting Policies,” for a discussion of recent accounting pronouncements and to the notes to our audited consolidated financial statements as of December 31, 2022 appearing in our Annual Report on Form 10-K, filed with the SEC on March 29, 2023.

Emerging Growth Company Status

The Jumpstart Our Business Startups Act of 2012 permits an “emerging growth company” such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have irrevocably elected to “opt out” of this provision and, as a result, we comply with new or revised accounting standards when they are required to be adopted by public companies that are not emerging growth companies.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

The primary objective of our investment activities is to preserve principal and liquidity while maximizing income without significantly increasing risk. We are exposed to market risks in the ordinary course of our business. These risks primarily relate to interest rate risks. We had cash, cash equivalents and short-term investments of $75.7 million as of September 30, 2023, which consist primarily of bank deposits and guaranteed investment certificates. We do not enter into investments for trading or speculative purposes. Due to the short-term nature of our investment portfolio, we do not believe an immediate 10% increase or decrease in interest rates would have a material effect on the fair market value of our portfolio, and accordingly we do not expect our operating results or cash flows to be materially affected by a sudden change in market interest rates.

We undertake certain transactions in Canadian dollars and as such are subject to risk due to fluctuations in exchange rates. Canadian dollar denominated payables are paid at the converted rate as due. We do not use derivative instruments to hedge exposure to foreign exchange rate risk due to the low volume of transactions denominated in foreign currencies. On September 30, 2023 our net monetary exposure denominated in Canadian dollars was $0.6 million.

Our operating results and financial position are reported in U.S. dollars in our consolidated financial statements. The fluctuation of the Canadian dollar in relation to the U.S. dollar might, consequently, have an impact upon our loss and may also affect the value of our assets and the amount of shareholders’ equity.

We do not have a formal hedging program with respect to foreign currency. A 10% increase or decrease in current exchange rates would not have a material effect on our consolidated financial results.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the “Exchange Act”, that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms and (2) accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2023. Based upon the evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

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

Item 1A. Risk Factors

Aside from the risk factor listed below, there have been no material changes from the risk factors previously disclosed in Part I, Item 1A. in our Annual Report on Form 10-K, filed with the SEC and under Milestone's SEDAR profile at www.sedarplus.com on March 29, 2023.

Healthcare legislative reform measures may have a negative impact on our business and results of operations.

In the United States and some foreign jurisdictions, there have been, and continue to be, several legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of product candidates, restrict or regulate post approval activities, and affect our ability to profitably sell any product candidates for which we obtain marketing approval. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare. For example, in March 2010 the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively referred to as PPACA, was passed, which substantially changed the way healthcare is financed by both governmental and private payors in the United States. There have been executive, judicial and Congressional challenges to certain aspects of the PPACA. For example, the Tax Cuts and Jobs Act of 2017, or the "Tax Act", was enacted, which included a provision that repealed, effective January 1, 2019, the tax based shared responsibility payment imposed by the PPACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." In addition, the 2020 federal spending package permanently eliminated, effective January 1, 2020, the PPACA mandated "Cadillac" tax on high cost employer sponsored health coverage and medical

device tax and, effective January 1, 2021, also eliminated the health insurer tax. On June 17, 2021, the U.S. Supreme Court dismissed a challenge on procedural grounds that argued the PPACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Moreover, prior to the U.S. Supreme Court ruling, on January 28, 2021, President Biden issued an executive order that initiated a special enrollment period for purposes of obtaining health insurance coverage through the PPACA marketplace. The executive order also instructed certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the PPACA. Further, on August 16, 2022, President Biden signed the Inflation Reduction Act of 2022, or IRA, into law, which among other things, extends enhanced subsidies for individuals purchasing health insurance coverage in PPACA marketplaces through plan year 2025. The IRA also eliminates the "donut hole" under the Medicare Part D program beginning in 2025 by significantly lowering the beneficiary maximum out-of-pocket cost and through a newly established manufacturer discount program. It is possible that the PPACA will be subject to judicial or Congressional challenges in the future. It is unclear how any additional healthcare reform measures of the Biden administration will impact the PPACA and our business.

Further, in the United States there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries, Presidential executive order and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under government payor programs, and review the relationship between pricing and manufacturer patient programs. For example, in July 2021, the Biden administration released an executive order, "Promoting Competition in the American Economy," with multiple provisions aimed at prescription drugs. In response to Biden's executive order, on September 9, 2021, the U.S. Department of Health and Human Services, or HHS, released a Comprehensive Plan for Addressing High Drug Prices that outlines principles for drug pricing reform and sets out a variety of potential legislative policies that Congress could pursue as well as potential administrative actions HHS can take to advance these principles. In addition, the IRA, among other things, (1) directs HHS to negotiate the price of certain single-source drugs and biologics covered under Medicare and (2) imposes rebates under Medicare Part B and Medicare Part D to penalize price increases that outpace inflation. These provisions take effect progressively, starting in fiscal year 2023. On August 29, 2023, HHS announced the list of the first ten drugs that will be subject to price negotiations. The IRA permits HHS to implement many of these provisions through guidance, as opposed to regulation, for the initial years. HHS has and will continue to issue and update guidance as these programs are implemented. It is currently unclear how the IRA will be implemented but is likely to have a significant impact on the pharmaceutical industry. Further, in response to the Biden administration's October 2022 executive order, on February 14, 2023, HHS released a report outlining three new models for testing by the CMS Innovation Center which will be evaluated on their ability to lower the cost of drugs, promote accessibility, and improve quality of care. It is unclear whether the models will be utilized in any health reform measures in the future. At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. The Biden administration released an additional executive order on October 14, 2022, directing HHS to submit a report on how the Center for Medicare and Medicaid Innovation can be further leveraged to test new models for lowering drug costs for Medicare and Medicaid beneficiaries. It is unclear whether this executive order or similar policy initiatives will be implemented in the future. We expect that additional U.S. healthcare reform measures will be adopted in the future, any of which could limit the amounts that the U.S. federal government will pay for healthcare products and services, which could result in reduced demand for etripamil or any future product candidates or additional pricing pressures.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. On August 2, 2011, the Budget Control Act of 2011 was signed into law, which includes reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, including the Infrastructure Investment and Jobs Act and the Consolidated Appropriations Act of 2023, will remain in effect through 2032, unless additional Congressional action is taken. Additionally, on March 11, 2021, President Biden signed the American Rescue Plan Act of 2021 into law, which eliminates the statutory Medicaid drug rebate cap, currently set at 100% of a drug's average manufacturer price, for single source and innovator multiple source drugs, beginning January 1, 2024. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other

things, reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

We cannot predict the likelihood, nature or extent of health reform initiatives that may arise from future legislation or administrative action in the United States or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing or new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, etripamil or any future product candidates we may develop may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

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

Not applicable

Item 3. Defaults Upon Senior Securities.

Not applicable

Item 4. Mine Safety Disclosures.

Not applicable

Item 5. Other Information.

Not applicable

Item 6. Exhibits.

Exhibit Number		Description
3.1		Amended Articles of Incorporation of the Company (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-38899), filed with the SEC on May 15, 2019).
3.2		Amended and Restated Bylaws of the Company (incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 001-38899), filed with the SEC on May 15, 2019).
4.1		Form of Exchange Warrant (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 001-38899), filed with the SEC on March 27, 2023).
10.1		First Amendment to Note Purchase Agreement, dated as of August 4, 2023.
10.2		Non-Employee Director Compensation Policy, as amended.
31.1		Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2		Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*		Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS		Inline XBRL Instance Document
101.SCH		Inline XBRL Taxonomy Extension Schema Document
101.CAL		Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF		Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB		Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE		Inline XBRL Taxonomy Extension Presentation Linkbase Document
104		The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, formatted in Inline XBRL.

* Furnished herewith and not deemed to be "filed" for purposes of Section 18 of the Exchange Act, and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the "Exchange Act (whether made before or after the date of the Form 10-Q)", irrespective of any general incorporation language contained in such filing.

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.

MILESTONE PHARMACEUTICALS INC.

Date: November 13, 2023

By: /s/ Joseph Oliveto
Joseph Oliveto
President and Chief Executive Officer
(Principal Executive Officer)

Date: November 13, 2023

By: /s/ Amit Hasija
Amit Hasija
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Exhibit 10.1

Execution Version

FIRST AMENDMENT TO
NOTE PURCHASE AGREEMENT

This FIRST AMENDMENT TO NOTE PURCHASE AGREEMENT, dated as of August 4, 2023 ("**Amendment**"), is made by and among Milestone Pharmaceuticals Inc., a corporation existing under the Business Corporations Act (Québec) (the "**Company**"), the Purchasers (defined below), RTW Investments, LP, as agent for the Purchasers (in such capacity, the "**Principal Purchaser**") and acknowledged and agreed by Acquiom Agency Services LLC, as collateral agent for the Purchasers (in such capacity, the "**Collateral Agent**"). Capitalized terms used herein, but not otherwise defined herein shall have the respective meanings set forth in the Note Purchase Agreement (defined below).

WITNESSETH:

WHEREAS, the Company entered into the Note Purchase Agreement, dated as of March 27, 2023 (the "**Note Purchase Agreement**"), with the purchasers from time to time party thereto (each, a "**Purchaser**", and collectively, the "**Purchasers**"), the Principal Purchaser, and the Collateral Agent, pursuant to which the Company has issued $50,000,000 aggregate principal amount of its 6.0% Convertible Senior Secured Notes due March 31, 2029 (each as amended, restated, supplemented or otherwise modified from time to time, the "**Notes**"); and

WHEREAS, in accordance with Section 13.6 of the Note Purchase Agreement, the Company, the Purchasers, and the Principal Purchaser have agreed that Section 7 of the Note Purchase Agreement be amended.

NOW, THEREFORE, in consideration of the covenants and agreements contained herein, as well as other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

SECTION 1. Amendments. Effective as of the Amendment Effective Date (as defined below):

(a) Section 1.1 is amended by adding the following term with the following meaning:

"Grantor" means the Company and the Guarantors.

(b) Section 7.1 is amended by adding a Section 7.1(d) with language as follows:

(d) enter into any control agreement, blocked account, lockbox or similar arrangement with the applicable depository institution or intermediary, the applicable Grantor and any secured party (other than the Collateral Agent) with respect to any deposit accounts securities accounts and commodities accounts held or maintained in Canada (excluding any Excluded Account (as defined in the Guarantee and Collateral Agreement)), other than in connection with Indebtedness permitted under Section 7.1(b)(v) hereof, provided that such

Indebtedness will be subject to subject to customary first lien/second lien intercreditor arrangements.

(c) The requirement to deliver control agreements for any Closing Date Account held in Canada pursuant to paragraph 2 on Schedule C to the Note Purchase Agreement is hereby removed.

SECTION 2. Conditions to Amendment Effectiveness. The effectiveness of this Amendment is subject to satisfaction of the following conditions precedent (the date of such satisfaction being the "**Amendment Effective Date**"):

(a)(i) the Company shall have executed and delivered a counterpart of this Amendment to each Purchaser and the Principal Purchaser and (ii) each Purchaser and the Principal Purchaser shall have executed and delivered counterparts of this Amendment to the Company; and

(b) no Event of Default shall have occurred and be continuing before and immediately after giving effect to this Amendment.

SECTION 4. Representations and Warranties. The Company hereby represents and warrants to each Purchaser and the Principal Purchaser, on and as of the Amendment Effective Date, that:

(a) The Company has all requisite corporate power and has taken all necessary corporate action required for the due authorization, execution, delivery and performance by the Company of this Amendment and the other Note Documents and the consummation of the transactions contemplated hereby and thereby. The execution, delivery and performance by the Company of this Amendment and the consummation by the Company of the transactions contemplated hereby, have been duly authorized by the Board of Directors and no further consent or authorization of the Company, the Board of Directors or its shareholders is required. This Amendment has been duly executed and delivered by the Company, and the other instruments referred to herein, including the Note Documents, to which it is a party and any Note Document to which it is a party will be duly executed and delivered by the Company, and each such instrument or Note Document constitutes or will constitute a legal, valid and binding obligation of the Company enforceable against it in accordance with its terms, except to the extent that enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies.

SECTION 5. Effects on the Note Purchase Agreement.

(a) On and after the Amendment Effective Date, each reference in the Note Purchase Agreement or any Note Document to the Note Purchase Agreement shall mean and be a reference to the Note Purchase Agreement as amended by this Amendment, and each reference in the Note Purchase Agreement to "this Agreement," "hereunder," "hereof" or words of like import shall mean and be a reference to the Note Purchase Agreement as amended by this Amendment.

(b) This Amendment does not constitute a novation or termination of the obligations under the Note Purchase Agreement; and except as specifically amended or otherwise modified hereby, all of the Note Documents shall continue to be in full force and effect and are hereby in all respects ratified and confirmed and no provision of the Note Purchase Agreement (including the definition of Final Availability Date therein) or the other Note Documents are amended in any way other than as expressly provided herein.

(c) Except as expressly set forth herein, this Amendment shall not by implication or otherwise limit, impair, constitute a waiver of or otherwise affect the rights and remedies of the Purchasers, Principal Purchaser or the Company under any Note Document.

(d) This Amendment shall constitute a Note Document for all purposes of the Note Purchase Agreement and the other Note Documents.

SECTION 6. Miscellaneous.

(a) Sections 13.2, 13.8, 13.9 of the Note Purchase Agreement are hereby incorporated herein by reference *mutatis mutandis.*

(b) The undersigned Purchasers, constituting all of the Purchasers, hereby direct the Collateral Agent to execute this Amendment.

[*Remainder of page intentionally left blank; signature pages follow.*]

IN WITNESS WHEREOF, the parties hereto have caused their duly authorized officers to execute and deliver this Amendment as of the date first above written.

MILESTONE PHARMACEUTICALS INC.

By: /s/Amit Hasija
Name: Amit Hasija
Title: Chief Executive Officer

This Amendment is hereby acknowledged and agreed to as of the date hereof by.

COLLATERAL AGENT:

Acquiom Agency Services LLC

By: /s/Shon McCraw-Davis
Name: Shon McCraw-Davis
Title: Director

RTW INVESTMENTS, LP,
as the Principal Purchaser

By: /s/ Roderick Wong, M.D.
Name: Roderick Wong, M.D.
Title: Managing Partner

This Amendment is hereby accepted and agreed to as of the date hereof.

RTW MASTER FUND, LTD.

By: /s/ Darshan Patel
Name: Darshan Patel
Title: Director

RTW INNOVATION MASTER FUND, LTD.

By: /s/ Darshan Patel
Name: Darshan Patel
Title: Director

RTW BIOTECH OPPORTUNITIES LTD (F/K/A RTW VENTURE FUND LIMITED)

By: RTW Investments, LP, its Investment Manager

By: /s/ Roderick Wong, M.D.
Name: Roderick Wong, M.D.
Title: Managing Partner

Exhibit 10.2

MILESTONE PHARMACEUTICALS INC.

AMENDED AND RESTATED NON-EMPLOYEE DIRECTOR COMPENSATION POLICY

Each member of the Board of Directors (the "***Board***") of Milestone Pharmaceuticals Inc. (the "***Company***") who is not also serving as an employee of the Company or any of its subsidiaries (each such member, an "***Eligible Director***") will receive the compensation described in this Non-Employee Director Compensation Policy (this "***Policy***"). An Eligible Director may decline all or any portion of his or her compensation by giving notice to the Company prior to the date cash is to be paid or equity awards are to be granted, as the case may be. This Policy may be amended at any time in the sole discretion of the Board or the Compensation Committee of the Board.

Annual Cash Compensation

The annual cash compensation amount set forth below is payable to Eligible Directors in equal quarterly installments, payable in arrears on the last day of each fiscal quarter in which the service occurred. If an Eligible Director joins the Board or a committee of the Board at a time other than effective as of the first day of a fiscal quarter, each annual retainer set forth below will be pro-rated based on days served in the applicable fiscal year, with the pro-rated amount paid for the first fiscal quarter in which the Eligible Director provides the service, and regular full quarterly payments to be paid thereafter. All annual cash fees are vested upon payment.

1. Annual Board Service Retainer:
    a. All Eligible Directors: $42,500
    b. Non-executive chairperson of the Board: $72,500 (inclusive of Annual Board Service Retainer)
2. Annual Committee Member Service Retainer:
    a. Member of the Audit Committee: $10,000
    b. Member of the Compensation Committee: $7,500
    c. Member of the Nominating and Corporate Governance Committee: $5,000
    d. Member of the Clinical Affairs Committee: $6,000
3. Annual Committee Chair Service Retainer (inclusive of Committee Member Service Retainer):
    a. Chairperson of the Audit Committee: $20,000
    b. Chairperson of the Compensation Committee: $15,000
    c. Chairperson of the Nominating and Corporate Governance Committee: $10,000
    d. Chairperson of the Clinical Affairs Committee: $12,000

The Company will also reimburse each of the Eligible Directors for his or her travel expenses incurred in connection with his or her attendance at Board and committee meetings. Such reimbursements shall be paid on the same date as the annual cash fees are paid.

Equity Compensation

The equity compensation set forth below will be granted under the Company's 2019 Equity Incentive Plan (the "***Plan***"), subject to the approval of the Plan by the Company's shareholders. All stock options granted under this Policy will be nonstatutory stock options, with an exercise price per share equal to 100% of the Fair Market Value (as defined in the Plan) of the underlying common stock on the date of grant, and a term of 10 years from the date of grant (subject to earlier termination in connection with a termination of service as provided in the Plan).

1. Initial Grant: For each Eligible Director who is first elected or appointed to the Board following the effective date of this Policy, on the date of such Eligible Director's initial election or appointment to the Board (or, if such date is not a market trading day, the first market trading day thereafter), the Eligible Director will be automatically, and without further action by the Board or Compensation Committee of the Board, granted a stock option to purchase a number of shares of the Company's common stock equal to 42,000 shares of the Company's common stock. The shares subject to each such stock option will vest monthly over a three-year period, subject to the Eligible Director's Continuous Service (as defined in the Plan) on each vesting date.

2. Annual Grant: On the date of each annual shareholder meeting of the Company held after the Effective Date, each Eligible Director who continues to serve as a non-employee member of the Board following such shareholder meeting will be automatically, and without further action by the Board or Compensation Committee of the Board, granted a stock option to purchase 25,000 shares of the Company's common stock (the "Annual Grant"). The shares subject to the Annual Grant will vest in equal monthly installments over the 12 months following the date of grant, provided that the Annual Grant will in any case be fully vested on the date of Company's next annual shareholder meeting, subject to the Eligible Director's Continuous Service (as defined in the Plan) through such vesting date and will vest in full upon a Change in Control (as defined in the Plan).

Approved: April 26, 2019

Effective: May 8, 2019

Amended: May 4, 2020

Amended: September 21, 2020

Amended and Restated: March 24, 2021

Amended and Restated: February 14, 2023

Amended and Restated: July 1, 2023

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Joseph Oliveto, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Milestone 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 13, 2023

/s/ Joseph Oliveto
Joseph Oliveto
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Amit Hasija, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Milestone 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 13, 2023

/s/ Amit Hasija
Amit Hasija
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Joseph Oliveto, Chief Executive Officer of Milestone Pharmaceuticals Inc. (the "Company"), and Amit Hasija, 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, 2023, 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.

Dated: November 13, 2023

/s/ Joseph Oliveto	/s/ Amit Hasija
Joseph Oliveto Chief Executive Officer (Principal Executive Officer)	Amit Hasija Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)