

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 March 31, 2024

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: 001-39335

Repare Therapeutics Inc.

(Exact Name of Registrant as Specified in its Charter)

Québec
(State or other jurisdiction of
incorporation or organization)

7171 Frederick-Banting, Building 2, Suite 270
St-Laurent, Québec, Canada
(Address of principal executive offices)

Not applicable
(I.R.S. Employer
Identification No.)

H4S 1Z9
(Zip Code)

Registrant's telephone number, including area code: (857) 412-7018

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, no par value	RPTX	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, 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	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 May 3, 2024, there were 42,445,406 of the registrant's common shares, no par value per share, outstanding.

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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, research and development costs, plans and objectives of management, 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. Although we believe that we have a reasonable basis for each forward-looking statement contained in this Quarterly Report on Form 10-Q, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain.

The forward-looking statements in this Quarterly Report on Form 10-Q include, among other things, statements about:

- the initiation, timing, progress and results of our current and future preclinical studies and clinical trials and related preparatory work and the period during which the results of the trials will become available, as well as our research and development programs;
 - our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
 - our ability to obtain regulatory approval of lunresertib, camonsertib and any of our other current and future product candidates that we develop;
 - our ability to identify and develop additional product candidates using our SNIPRx platform;
 - business disruptions affecting the initiation, patient enrollment, development and operation of our clinical trials, including a public health emergency or pandemic;
 - the evolving impact of macroeconomic events, including health pandemics, changes in inflation, the U.S. Federal Reserve raising interest rates, disruptions in access to bank deposits or lending commitments due to bank failures and the Russia-Ukraine and Middle-East conflicts, on our operations, supply chains, general economic conditions, our ability to raise additional capital, and the continuity of our business, including our preclinical studies and clinical trials;
 - our ability to enroll patients in clinical trials, to timely and successfully complete those trials and to receive necessary regulatory approvals;
 - the timing of completion of enrollment and availability of data from our current preclinical studies and clinical trials, including ongoing clinical trials of lunresertib, camonsertib and RP-1664;
 - the expected timing of filings with regulatory authorities for any product candidates that we develop;
 - our expectations regarding the potential market size and the rate and degree of market acceptance for any current or future product candidates that we develop;
 - our ability to receive any milestone or royalty payments under our collaboration and license agreements;
 - the anticipated impact of the termination of our collaboration with Hoffmann-La Roche Inc. and F. Hoffmann-La Roche Ltd for the development and commercialization of camonsertib, including our expectations regarding the development of camonsertib following the transition of commercial and development rights in camonsertib back to us;
 - our ability to realize the benefits of the collaboration compounds retained by us following the termination of our collaboration with F. Hoffmann-La Roche Ltd and Hoffman-La Roche Inc.;
 - the effects of competition with respect to lunresertib, camonsertib, or any of our other current or future product candidates, as well as innovations by current and future competitors in our industry;
 - our ability to fund our working capital requirements;
 - our intellectual property position, including the scope of protection we are able to establish, maintain and enforce for intellectual property rights covering our product candidates;
 - our financial performance and our ability to effectively manage our anticipated growth;
 - our ability to obtain additional funding for our operations; and
 - other risks and uncertainties, including those listed under the section titled “Risk Factors” in this Quarterly Report and elsewhere in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the Securities and Exchange Commission (the “SEC”) on February 28, 2024.
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Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth, and involve known and unknown risks, uncertainties and other factors including, without limitation, risks, uncertainties and assumptions regarding the impact of the macroeconomic events on our business, operations, strategy, goals and anticipated timelines, our ongoing and planned preclinical activities, our ability to initiate, enroll, conduct or complete ongoing and planned clinical trials, our timelines for regulatory submissions and our financial position that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. You are urged to carefully review the disclosures we make concerning these risks and other factors that may affect our business and operating results in this Quarterly Report on Form 10-Q. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this document. Except as required by law, we do not intend, and undertake no obligation, to update any forward-looking information to reflect events or circumstances.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

Repare Therapeutics Inc.
Condensed Consolidated Balance Sheets
(Unaudited)
(Amounts in thousands of U.S. dollars, except share data)

	As of March 31, 2024	As of December 31, 2023
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 103,217	\$ 111,268
Marketable securities	133,784	112,359
Income tax receivable	10,829	10,813
Other current receivables	3,377	4,499
Prepaid expenses	3,463	4,749
Total current assets	254,670	243,688
Property and equipment, net	3,714	4,215
Operating lease right-of-use assets	2,763	3,326
Income tax receivable	1,630	2,276
Other assets	307	396
TOTAL ASSETS	\$ 263,084	\$ 253,901
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 6,825	\$ 2,400
Accrued expenses and other current liabilities	20,454	24,057
Operating lease liability, current portion	2,218	2,400
Deferred revenue, current portion	1,073	10,222
Total current liabilities	30,570	39,079
Operating lease liability, net of current portion	561	1,010
Deferred revenue, net of current portion	—	1,730
TOTAL LIABILITIES	31,131	41,819
SHAREHOLDERS' EQUITY		
Preferred shares, no par value per share; unlimited shares authorized as of March 31, 2024 and December 31, 2023, respectively; 0 shares issued and outstanding as of March 31, 2024, and December 31, 2023, respectively	—	—
Common shares, no par value per share; unlimited shares authorized as of March 31, 2024 and December 31, 2023; 42,445,406 and 42,176,041 shares issued and outstanding as of March 31, 2024 and December 31, 2023, respectively	486,375	483,350
Additional paid-in capital	65,638	61,813
Accumulated other comprehensive (loss) income	(113)	28
Accumulated deficit	(319,947)	(333,109)
Total shareholders' equity	231,953	212,082
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 263,084	\$ 253,901

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

Repare Therapeutics Inc.
Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)
(Unaudited)
(Amounts in thousands of U.S. dollars, except share and per share data)

	Three Months Ended March 31,	
	2024	2023
Revenue:		
Collaboration agreements	\$ 52,404	\$ 5,678
Operating expenses:		
Research and development, net of tax credits	32,970	31,830
General and administrative	8,618	8,529
Total operating expenses	41,588	40,359
Income (loss) from operations	10,816	(34,681)
Other income (expense), net		
Realized and unrealized gain (loss) on foreign exchange	31	(56)
Interest income	2,968	3,427
Other expense	(24)	(15)
Total other income, net	2,975	3,356
Income (loss) before income taxes	13,791	(31,325)
Income tax expense	(629)	(3,616)
Net income (loss)	\$ 13,162	\$ (34,941)
Other comprehensive (loss) income:		
Unrealized (loss) gain on available-for-sale marketable securities	\$ (141)	\$ 193
Total other comprehensive (loss) income	(141)	193
Comprehensive income (loss)	\$ 13,021	\$ (34,748)
Net income (loss) per share attributable to common shareholders:		
Basic	\$ 0.31	\$ (0.83)
Diluted	\$ 0.30	\$ (0.83)
Weighted-average common shares outstanding:		
Basic	42,234,001	42,040,674
Diluted	44,024,198	42,040,674

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

Repare Therapeutics Inc.
Condensed Consolidated Statements of Shareholders' Equity
(Unaudited)
(Amounts in thousands of U.S. dollars, except share data)

	Common Shares		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Shareholders' Equity
	Shares	Amount				
Balance, December 31, 2022	42,036,193	\$ 482,032	\$ 37,226	\$ (428)	\$ (239,313)	\$ 279,517
Share-based compensation expense	—	—	6,062	—	—	6,062
Exercise of stock options	2,000	7	(3)	—	—	4
Issuance of common shares under the 2020 Employee Share Purchase Plan	41,703	638	(229)	—	—	409
Other comprehensive income	—	—	—	193	—	193
Net loss	—	—	—	—	(34,941)	(34,941)
Balance, March 31, 2023	<u>42,079,896</u>	<u>\$ 482,677</u>	<u>\$ 43,056</u>	<u>\$ (235)</u>	<u>\$ (274,254)</u>	<u>\$ 251,244</u>
Balance, December 31, 2023	42,176,041	\$ 483,350	\$ 61,813	\$ 28	\$ (333,109)	\$ 212,082
Share-based compensation expense	—	—	6,475	—	—	6,475
Exercise of stock options	8,485	27	(10)	—	—	17
Issuance of common shares on vesting of restricted share units	200,262	2,488	(2,488)	—	—	—
Issuance of common shares under the 2020 Employee Share Purchase Plan	60,618	510	(152)	—	—	358
Other comprehensive loss	—	—	—	(141)	—	(141)
Net income	—	—	—	—	13,162	13,162
Balance, March 31, 2024	<u>42,445,406</u>	<u>\$ 486,375</u>	<u>\$ 65,638</u>	<u>\$ (113)</u>	<u>\$ (319,947)</u>	<u>\$ 231,953</u>

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

Repare Therapeutics Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(Amounts in thousands of U.S. dollars)

	Three Months Ended March 31,	
	2024	2023
Cash Flows From Operating Activities:		
Net income (loss) for the period	\$ 13,162	\$ (34,941)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Share-based compensation expense	6,475	6,062
Depreciation expense	501	441
Non-cash lease expense	563	541
Foreign exchange (gain) loss	(22)	66
Net accretion of marketable securities	(1,245)	(1,839)
Changes in operating assets and liabilities:		
Prepaid expenses	1,286	1,330
Other current receivables	1,110	(2,741)
Other non-current assets	89	89
Accounts payable	4,431	2,016
Accrued expenses and other current liabilities	(3,587)	(4,203)
Operating lease liability, current portion	(153)	35
Income taxes	630	3,616
Operating lease liability, net of current portion	(429)	(581)
Deferred revenue	(10,879)	(1,677)
Net cash provided by (used in) operating activities	<u>11,932</u>	<u>(31,786)</u>
Cash Flows From Investing Activities:		
Purchases of property and equipment	—	(475)
Proceeds from maturities of marketable securities	69,015	92,500
Purchase of marketable securities	(89,331)	(98,711)
Net cash used in investing activities	<u>(20,316)</u>	<u>(6,686)</u>
Cash Flows From Financing Activities:		
Proceeds from exercise of stock options	17	4
Proceeds from issuance of common stock under the 2020 Employee Share Purchase Plan	358	409
Net cash provided by financing activities	<u>375</u>	<u>413</u>
Effect of exchange rate fluctuations on cash held	(42)	(1)
Net Decrease In Cash And Cash Equivalents	(8,051)	(38,060)
Cash and cash equivalents at beginning of period	111,268	159,521
Cash and cash equivalents at end of period	<u>\$ 103,217</u>	<u>\$ 121,461</u>
Supplemental Disclosure Of Cash Flow Information:		
Property and equipment purchases incurred but not yet paid	\$ —	\$ 1,134
Right-of-use asset obtained in exchange for new operating lease liability	\$ —	\$ 146

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

REPARE THERAPEUTICS INC.
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in U.S. dollars, unless otherwise specified)

1. Organization and Nature of Business

Repare Therapeutics Inc. (“Repare” or the “Company”) is a precision medicine oncology company focused on the development of synthetic lethality-based therapies for patients with cancer. The Company is governed by the *Business Corporations Act (Québec)*. The Company’s common shares are listed on the Nasdaq Global Select Market under the ticker symbol “RPTX”.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America (“U.S. GAAP”). Any reference in these notes to applicable guidance is meant to refer to the authoritative U.S. GAAP as found in the Accounting Standards Codification (“ASC”) and as amended by Accounting Standards Updates (“ASU”) of the Financial Accounting Standards Board (“FASB”).

The unaudited condensed consolidated financial statements have been prepared on the same basis as the audited annual consolidated financial statements as of and for the year ended December 31, 2023, and, in the opinion of management, reflect all adjustments, consisting of normal recurring adjustments, necessary for the fair presentation of the Company’s consolidated financial position as of March 31, 2024, the consolidated results of its operations for the three months ended March 31, 2024 and 2023, its statements of shareholders’ equity for the three months ended March 31, 2024 and 2023 and its consolidated cash flows for the three months ended March 31, 2024 and 2023.

These unaudited condensed consolidated financial statements should be read in conjunction with the Company’s audited consolidated financial statements and the accompanying notes for the year ended December 31, 2023 included in the Company’s Annual Report on Form 10-K, filed with the Securities and Exchange Commission (the “SEC”) on February 28, 2024 (the “Annual Report”). The condensed consolidated balance sheet data as of December 31, 2023 presented for comparative purposes was derived from the Company’s audited consolidated financial statements but does not include all disclosures required by U.S. GAAP. The results for the three months ended March 31, 2024 are not necessarily indicative of the operating results to be expected for the full year or for any other subsequent interim period.

The Company’s significant accounting policies are disclosed in the audited consolidated financial statements for the year ended December 31, 2023 included in the Annual Report. There have been no changes to the Company’s significant accounting policies since the date of the audited consolidated financial statements for the year ended December 31, 2023 included in the Annual Report.

Principles of Consolidation

These unaudited condensed consolidated financial statements of the Company include the accounts of the Company and its wholly-owned subsidiary, Repare Therapeutics USA Inc. (“Repare USA”), which was incorporated under the laws of Delaware on June 1, 2017. The financial statements of Repare USA are prepared for the same reporting period as the parent company, using consistent accounting policies. All intra-group transactions, balances, income, and expenses are eliminated in full upon consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in consolidated financial statements and accompanying notes. Significant estimates and assumptions reflected in these unaudited condensed consolidated financial statements include, but are not limited to, estimates related to revenue recognition, accrued research and development expenses, share-based compensation and income taxes. The Company bases its estimates on historical experience and other market specific or other relevant assumptions that it believes to be reasonable under the circumstances. Actual results could differ from those estimates. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Changes in estimates are recorded in the period in which they become known.

Recently Issued Accounting Pronouncements Not Yet Adopted

In November 2023, the FASB amended the guidance in ASU 280, Segment Reporting, to require a public entity to disclose significant segment expenses and other segment items on an annual and interim basis and provide in interim periods all disclosures about a reportable segment’s profit or loss and assets that are currently required annually. Public entities with a single reportable segment

are required to provide the new disclosures and all the disclosures currently required under ASC 280. The new guidance is effective for public entities in fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company is currently assessing the impact of this amendment on its consolidated financial statements.

In December 2023, the FASB amended the guidance in ASU 740, Income Taxes, to provide disaggregated income tax disclosures on the rate reconciliation and income taxes paid. The new guidance is effective for public entities in fiscal years beginning after 15 December 2024. Early adoption is permitted. The Company is currently assessing the impact of this amendment on its consolidated financial statements.

3. Cash and Cash Equivalents and Marketable Securities

Cash and cash equivalents and marketable securities were comprised of the following:

	<u>Amortized Cost</u>	<u>Unrealized Gains</u> <u>(in thousands)</u>		<u>Unrealized Losses</u>	<u>Fair Value</u>
As of March 31, 2024					
Cash and cash equivalents:					
Cash	\$ 48,706	\$ —	\$ —	\$ —	\$ 48,706
Money market funds	44,558	—	—	—	44,558
Commercial paper	9,954	—	(1)	—	9,953
Total cash and cash equivalents:	<u>\$ 103,218</u>	<u>\$ —</u>	<u>\$ (1)</u>	<u>\$ —</u>	<u>\$ 103,217</u>
Marketable securities:					
Commercial paper	\$ 117,197	\$ 16	\$ (113)	\$ —	\$ 117,100
Corporate debt securities	16,699	—	(15)	—	16,684
Total marketable securities	<u>\$ 133,896</u>	<u>\$ 16</u>	<u>\$ (128)</u>	<u>\$ —</u>	<u>\$ 133,784</u>
As of December 31, 2023					
Cash and cash equivalents:					
Cash	\$ 44,462	\$ —	\$ —	\$ —	\$ 44,462
Money market funds	36,991	—	—	—	36,991
Commercial paper	29,811	4	—	—	29,815
Total cash and cash equivalents:	<u>\$ 111,264</u>	<u>\$ 4</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 111,268</u>
Marketable securities:					
U.S. Treasury and government-sponsored enterprises	\$ 22,434	\$ —	\$ (25)	\$ —	\$ 22,409
Commercial paper	89,901	60	(11)	—	89,950
Total marketable securities	<u>\$ 112,335</u>	<u>\$ 60</u>	<u>\$ (36)</u>	<u>\$ —</u>	<u>\$ 112,359</u>

Interest receivable was \$0.4 million and \$0.4 million as of March 31, 2024 and December 31, 2023, respectively, and is included in other current receivables.

The Company held available-for-sale marketable securities with an aggregate fair value of \$109.3 million and \$58.6 million that were in an immaterial, unrealized loss position as of March 31, 2024 and December 31, 2023, respectively, as shown in the table above. These marketable securities have been in an unrealized loss position for less than twelve months. The unrealized losses as of March 31, 2024 and December 31, 2023, were not attributed to credit risk but were primarily associated with changes in interest rates and market liquidity. The Company does not intend to sell these securities and it is more likely than not that it will hold these investments for a period of time sufficient to recover the amortized cost. As a result, the Company did not record an allowance for credit losses or other impairment charges for its marketable securities for the three months ended March 31, 2024 and 2023.

The Company recognized a net unrealized loss of \$0.1 million and a net unrealized gain of \$0.2 million in other comprehensive (loss) income in the three months ended March 31, 2024 and 2023, respectively, in relation to its cash and cash equivalents and marketable securities.

The maturities of the Company's marketable securities as of March 31, 2024 and December 31, 2023 are less than one year.

4. Fair Value Measurements

Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- Level 1 – Quoted prices in active markets for identical assets or liabilities.
- Level 2 – Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3 – Unobservable inputs that are supported by little or no market activity that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The following table presents information about the Company's financial assets measured at fair value on a recurring basis and indicates the level of the fair value hierarchy utilized to determine such fair values:

Description	Financial Assets	Level 1	Level 2	Level 3
	(in thousands)			
As of March 31, 2024				
Assets				
Cash equivalents:				
Money market funds	\$ 44,558	\$ 44,558	\$ —	\$ —
Commercial paper	9,953	—	9,953	—
Total cash equivalents	<u>54,511</u>	<u>44,558</u>	<u>9,953</u>	<u>—</u>
Marketable securities:				
Commercial paper	117,100	—	117,100	—
Corporate debt securities	16,684	—	16,684	—
Total marketable securities	<u>133,784</u>	<u>—</u>	<u>133,784</u>	<u>—</u>
Total financial assets	<u>\$ 188,295</u>	<u>\$ 44,558</u>	<u>\$ 143,737</u>	<u>\$ —</u>
As of December 31, 2023				
Assets				
Cash equivalents:				
Money market funds	\$ 36,991	\$ 36,991	\$ —	\$ —
Commercial paper	29,815	—	29,815	—
Total cash equivalents	<u>66,806</u>	<u>36,991</u>	<u>29,815</u>	<u>—</u>
Marketable securities:				
U.S. Treasury and government-sponsored enterprises	22,409	—	22,409	—
Commercial paper	89,950	—	89,950	—
Total marketable securities	<u>112,359</u>	<u>—</u>	<u>112,359</u>	<u>—</u>
Total financial assets	<u>\$ 179,165</u>	<u>\$ 36,991</u>	<u>\$ 142,174</u>	<u>\$ —</u>

When developing fair value estimates, the Company maximizes the use of observable inputs and minimizes the use of unobservable inputs. When available, the Company uses quoted market prices to measure the fair value. In determining the fair values at each date presented above, the Company relied on quoted prices for similar securities in active markets or using other inputs that are observable or can be corroborated by observable market data.

During the three months ended March 31, 2024, there were no transfers between fair value measure levels.

5. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities as of March 31, 2024 and December 31, 2023 consisted of the following:

	March 31, 2024	December 31, 2023
	(in thousands)	
Accrued research and development expense	\$ 16,443	\$ 16,251
Accrued compensation and benefits	2,739	6,981
Accrued professional services	671	631
Other	601	194
Total accrued expenses and other current liabilities	<u>\$ 20,454</u>	<u>\$ 24,057</u>

6. Collaborative Arrangements

Debiopharm Clinical Study and Collaboration Agreement

In January 2024, the Company entered into a clinical study and collaboration agreement with Debiopharm International S.A. (“Debiopharm”), a privately-owned, Swiss-based biopharmaceutical company, with the aim to explore the synergy between the Company’s compound, lunresertib, and Debiopharm’s compound, Debio 0123, a WEE1 inhibitor (the “Debio collaboration agreement”). The Company and Debiopharm are collaborating on the development of a combination therapy, with the Company sponsoring the global study, and will share all costs equally. The Company and Debiopharm are each supplying their respective drugs and retain all commercial rights to their respective compounds, including as monotherapy or as combination therapies. The activities associated with the collaboration are coordinated by a joint steering committee, which is comprised of an equal number of representatives from the Company and Debiopharm.

Based on the terms of the Debio collaboration agreement, the Company concluded that the Debio collaboration agreement meets the requirements of a collaboration within the guidance of ASC 808, Collaborative Arrangements, as both parties are active participants in the combination trial and are exposed to significant risks and rewards depending on the success of the combination trial. Accordingly, the net costs associated with the co-development are expensed as incurred and recognized within research and development expenses in the consolidated statement of operations and comprehensive income (loss).

During the three-month period ended March 31, 2024, the Company recognized \$0.5 million in net research and development costs with regards to the Debio collaboration agreement and recorded a receivable from Debiopharm of \$0.5 million in other current receivables, reflecting the 50/50 cost sharing terms.

7. Revenue recognition from Collaboration and License Agreements

The following table presents revenue from collaboration agreements:

	Three Months Ended March 31,	
	2024	2023
	(in thousands)	
Roche Collaboration and License Agreement	\$ 49,815	\$ 5,312
Bristol-Myers Squibb Collaboration and License Agreement	2,589	366
Total revenue	<u>\$ 52,404</u>	<u>\$ 5,678</u>

The Company’s revenue recognition accounting policy, as well as additional information on the Company’s collaboration and license agreements are disclosed in the audited consolidated financial statements for the year ended December 31, 2023 included in the Annual Report.

Roche Collaboration and License Agreement

In June 2022, the Company entered into a collaboration and license agreement (the “Roche Agreement”) with Hoffmann-La Roche Inc. and F. Hoffmann-La Roche Ltd (collectively, “Roche”) regarding the development and commercialization of the Company’s product candidate camonsertib (also known as RP-3500) and specified other Ataxia-Telangiectasia and Rad3-related protein kinase (“ATR”) inhibitors (the “Licensed Products”) which became effective July 13, 2022 (the “Effective Date”). Pursuant to the Roche Agreement, the Company granted Roche a worldwide, perpetual, exclusive, sublicensable license to develop, manufacture, and

commercialize the Licensed Products, as well as a non-exclusive, sublicensable license to certain related companion diagnostics. The Company agreed to complete specified ongoing clinical trials in accordance with the development plan in the Roche Agreement, as well as ongoing investigator sponsored trials (together, the “Continuing Trials”) at the Company’s expense. Roche assumed all subsequent development of camonsertib with the potential to expand development into additional tumors and multiple combination studies. The Company retained the right to conduct specified clinical trials (the “Repare Trials”) of camonsertib in combination with the Company’s PKMYT1 compound, lunresertib (also known as RP-6306). The Roche Agreement provided the Company, at its sole discretion, with the ability to opt-in to a 50/50 U.S. co-development and profit share arrangement, including participation in U.S. co-promotion if U.S. regulatory approval was received. If the Company chose to exercise its co-development and profit share option, it would continue to be eligible to receive certain clinical, regulatory, commercial and sales milestone payments, in addition to full ex-U.S. royalties.

On February 7, 2024, the Company received written notice from Roche of their election to terminate the Roche Agreement following a review of Roche’s pipeline and evolving external factors. The termination became effective May 7, 2024, at which time the Company regained global development and commercialization rights for camonsertib from Roche.

In March 2024, the Company received a payment of \$4.0 million for revisions to the clinical development plan under the Roche Agreement, of which \$2.1 million was previously recorded as a receivable at December 31, 2023. The transaction price was updated for this additional consideration received, as well as other adjustments of \$0.5 million pursuant to the termination of the agreement.

In February 2024, the Company further received a \$40.0 million milestone payment from Roche that was earned upon dosing of the first patient with camonsertib in Roche’s Phase 2 TAPISTRY trial in January 2024.

Deferred revenue pertaining to the Roche Agreement	Completion of Continuing Trials	
	(in thousands)	
Balance as of December 31, 2023	\$	9,463
Increase in collaboration revenue		41,425
Recognition as revenue, as the result of performance obligations satisfied		(49,815)
Balance as of March 31, 2024	\$	1,073
Classified as short-term	\$	1,073

The Company recognized \$49.8 million and \$5.3 million for the three months ended March 31, 2024 and 2023, respectively as revenue associated with the Roche Agreement in relation to (i) the recognition of revenue upon the \$40.0 million milestone achievement in the first quarter of 2024, as well as (ii) the partial recognition of deferred revenue for research and development services performed towards the completion of the Continuing Trials during the period.

As of March 31, 2024, there was \$1.1 million (December 31, 2023 - \$9.4 million) of deferred revenue related to the Roche Agreement, of which \$1.1 million (December 31, 2023 - \$7.7 million) was classified as current and nil (December 31, 2023 - \$1.7 million) was classified as non-current in the condensed consolidated balance sheet based on the period the services to complete the Continuing Trials are expected to be performed. All deferred revenue related to the Roche Agreement is expected to be recognized in the second quarter of 2024 pursuant to the termination.

Bristol-Myers Squibb Collaboration and License Agreement

In May 2020, the Company entered into a collaboration and license agreement (the “BMS Agreement”) with Bristol-Myers Squibb Company (“Bristol-Myers Squibb”), pursuant to which the Company and Bristol-Myers Squibb have agreed to collaborate in the research and development of potential new product candidates for the treatment of cancer. The Company provided Bristol-Myers Squibb access to a selected number of its existing screening campaigns and novel campaigns. The Company was responsible for carrying out early-stage research activities directed to identifying potential targets for potential licensing by Bristol-Myers Squibb, in accordance with a mutually agreed upon research plan, and was solely responsible for such costs. The collaboration consisted of programs directed to both druggable targets and to targets commonly considered undruggable to traditional small molecule approaches. Upon Bristol-Myers Squibb’s election to exercise its option to obtain exclusive worldwide licenses for the subsequent development, manufacturing and commercialization of a program, Bristol-Myers Squibb will then be solely responsible for all such worldwide activities and costs.

Although the collaboration term expired in November 2023, the BMS Agreement will not expire until, on a licensed product-by-licensed product and country-by-country basis, the expiration of the applicable royalty term and in its entirety upon expiration of the last royalty term. Either party may terminate earlier upon an uncured material breach of the agreement by the other party, or the

insolvency of the other party. Additionally, Bristol-Myers Squibb may terminate the BMS Agreement for any or no reason on a program-by-program basis upon specified written notice.

The Company is entitled to receive up to \$301.0 million in total milestones on a program-by-program basis, consisting of \$176.0 million in the aggregate for certain specified research, development and regulatory milestones and \$125.0 million in the aggregate for certain specified commercial milestones. The Company is further entitled to a tiered percentage royalty on annual net sales ranging from high-single digits to low-double digits, subject to certain specified reductions.

Deferred revenue pertaining to the BMS Agreement	Options to license undruggable targets	
	(in thousands)	
Balance as of December 31, 2023	\$	2,489
Increase in collaboration revenue		100
Recognition as revenue, as the result of performance obligations satisfied		(2,589)
Balance as of March 31, 2024	\$	—

In March 2024, Bristol-Myers Squibb exercised its one remaining option for an undruggable target. As a result, the Company recognized \$2.6 million as revenue related to undruggable targets, including the option fee payment of \$0.1 million.

8. Leases

The Company has historically entered into lease arrangements for its facilities. As of March 31, 2024, the Company had four operating leases with required future minimum payments. The Company's leases generally do not include termination or purchase options.

Operating Leases

The following tables contain a summary of the lease costs recognized under ASC 842 and other information pertaining to the Company's operating leases:

	Three Months Ended March 31,	
	2024	2023
	(in thousands)	
Operating Leases - Lease Costs		
Operating lease costs	\$ 594	\$ 592
Short-term lease costs	19	14
Variable lease costs	85	40
Total lease costs	\$ 698	\$ 646

	Three Months Ended March 31,	
	2024	2023
	(in thousands, except as specified otherwise)	
Other Operating Lease Information		
Operating cash flows used for operating leases	\$ 613	\$ 599
Right-of-use assets obtained in exchange for new operating lease liability	\$ —	\$ 146
Weighted-average remaining lease term (in years)	1.23	2.19
Weighted-average discount rate	4.2%	4.1%

9. Share-Based Compensation

2020 Employee Share Purchase Plan

In June 2020, the Company's board of directors adopted, and the Company's shareholders approved the 2020 Employee Share Purchase Plan ("ESPP"). The number of shares reserved and available for issuance under the ESPP will automatically increase each January 1, beginning on January 1, 2021 and each January 1 thereafter through January 31, 2030, by the lesser of (1) 1.0% of the total number of common shares outstanding on December 31 of the preceding calendar year, (2) 3,300,000 common shares, or (3) such

smaller number of common shares as the Company’s board of directors may designate. As of March 31, 2024, the number of common shares that may be issued under the ESPP is 1,772,568.

The ESPP enables eligible employees to purchase common shares of the Company at the end of each offering period at a price equal to 85% of the fair market value of the shares on the first business day or the last business day of the offering period, whichever is lower. Participation in the ESPP is voluntary. Eligible employees become participants in the ESPP by enrolling in the plan and authorizing payroll deductions. At the end of each offering period, accumulated payroll deductions are used to purchase the Company’s shares at the discounted price. The Company makes no contributions to the ESPP. A participant may withdraw from the ESPP or suspend contributions to the ESPP. If the participant elects to withdraw during an offering, all contributions are refunded as soon as administratively practicable. If a participant elects to withdraw or suspend contributions, they will not be able to re-enroll in the current offering but may elect to participate in future offerings. A participant may only purchase whole shares of the Company’s common shares in the ESPP. ESPP offering periods are offered on a rolling six-month basis.

The Company issued 60,618 common shares under the ESPP for the three months ended March 31, 2024, at a weighted-average price per share of \$5.91, for aggregate proceeds of \$0.4 million.

Option Plan and 2020 Plan

In December 2016, as further amended in December 2017 and September 2019, the Company adopted the Repare Therapeutics Inc. Option Plan (the “Option Plan”) for the issuance of stock options and other share-based awards to directors, officers, employees or consultants. The Option Plan authorized up to 4,074,135 shares of the Company’s common shares to be issued.

In June 2020, the Company’s board of directors adopted, and the Company’s shareholders approved the 2020 Equity Incentive Plan (the “2020 Plan”). The 2020 Plan became effective on the effective date of the IPO, at which time the Company ceased making awards under the Option Plan. The 2020 Plan allows the Company’s compensation committee to make equity-based and cash-based incentive awards to the Company’s officers, employees, directors and consultants including but not limited to stock options and restricted share units. The aggregate number of common shares reserved and available for issuance under the 2020 Plan has automatically increased on January 1 of each year beginning on January 1, 2021 and will continue to increase on January 1 of each year through and including January 1, 2030, by 5% of the outstanding number of common shares on the immediately preceding December 31, or such lesser number of shares as determined by the Company’s board of directors. As of March 31, 2024, the number of common shares reserved for issuance under the 2020 Plan is 12,136,183.

The exercise price per share of a stock option must be at least equal to the fair value of the common shares on the date of grant, as determined by the Company’s compensation committee or the Company’s board of directors. Stock options awarded under the 2020 Plan expire 10 years after the grant. Unless otherwise stated in a stock option agreement, options generally have vesting conditions of 25% of the shares subject to an option grant typically vesting upon the first anniversary of the vesting start date and thereafter at the rate of one forty-eighth of the option shares per month as of the first day of each month after the first anniversary.

Inducement Plan

In April 2024, the Company’s board of directors approved the adoption of the 2024 Inducement Plan (the “Inducement Plan”), to be used exclusively for grants of awards to individuals who were not previously employees or directors (or following a bona fide period of non-employment) as a material inducement to such individuals’ entry into employment with the Company, pursuant to Nasdaq Listing Rule 5635(c)(4). The terms and conditions of the Inducement Plan are substantially similar to those of the 2020 Plan. 350,000 common shares have been reserved for issuance under the Inducement Plan.

Stock Options

The following table summarizes the Company’s stock options activity:

	Number of shares	Weighted average exercise price
Outstanding, January 1, 2024	10,097,771	\$ 13.77
Granted	1,376,682	\$ 6.95
Exercised	(8,485)	\$ 1.99
Cancelled or forfeited	(145,179)	\$ 16.74
Outstanding, March 31, 2024	11,320,789	\$ 12.91

During the three months ended March 31, 2024, an aggregate of 8,485 options were exercised at a weighted-average exercise price of \$1.99 per share.

The fair value of stock options, and the assumptions used in the Black Scholes option-pricing model to determine the grant date fair value of stock options granted to employees and non-employees were as follows, presented on a weighted average basis:

	Three Months Ended March 31,	
	2024	2023
Fair value of stock options	\$ 5.08	\$ 8.85
Risk-free interest rate	4.19%	3.65%
Expected terms (in years)	6.08	6.08
Expected volatility	82.99%	81.77%
Expected dividend yield	0.00%	0.00%

Restricted Share Units

The following table summarizes the Company's restricted share unit activity:

	Number of shares	Weighted average grant date fair value
Outstanding, January 1, 2024	603,685	\$ 12.42
Awarded	527,273	\$ 6.95
Vested and released	(200,262)	\$ 12.42
Forfeited	(3,392)	\$ 12.42
Outstanding, March 31, 2024	927,304	\$ 9.31

The fair value of each restricted share unit is estimated on the date of grant based on the fair value of our common shares on that same date.

Share-Based Compensation

Share-based compensation expense for all awards was allocated as follows:

	Three Months Ended March 31,	
	2024	2023
	(in thousands)	
Research and development	\$ 3,419	\$ 3,219
General and administrative	3,056	2,843
Total share-based compensation expense	\$ 6,475	\$ 6,062

Share-based compensation expense by type of award was as follows:

	Three Months Ended March 31,	
	2024	2023
	(in thousands)	
Stock options	\$ 5,685	\$ 5,537
Restricted share units	709	425
ESPP	81	100
Total share-based compensation expense	\$ 6,475	\$ 6,062

As of March 31, 2024, there was \$38.6 million and \$8.1 million of unrecognized share-based compensation expense to be recognized over a weighted average period of 1.6 years and 2.5 years related to unvested stock options and unvested restricted share units, respectively.

11. Net Income (Loss) per Share

The following table summarizes the computation of basic and diluted net income (loss) per share attributable to common shareholders of the Company:

	Three Months Ended March 31,	
	2024	2023
<i>(in thousands, except share and per share amounts)</i>		
Numerator:		
Net income (loss)	\$ 13,162	\$ (34,941)
Denominator:		
Weighted-average common shares outstanding — basic	42,234,001	42,040,674
Dilutive impact of outstanding stock options, restricted share units and shares issuable under the ESPP	1,790,197	—
Weighted-average common shares outstanding — diluted	44,024,198	42,040,674
Net income (loss) per share		
Basic	\$ 0.31	\$ (0.83)
Diluted	\$ 0.30	\$ (0.83)

The Company excluded the following potential common shares, presented based on amounts outstanding at each period end, from the computation of diluted net income (loss) per share attributable to common shareholders for the periods indicated because including them would have had an anti-dilutive effect:

	Three Months Ended March 31,	
	2024	2023
Options to purchase common shares	8,778,678	9,572,829
Restricted share units	927,304	622,835
Estimated shares issuable under the ESPP	—	48,136

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

You should read the following discussion and analysis of our financial condition and results of operations together with (i) our unaudited condensed consolidated financial statements and related notes, appearing elsewhere in this Quarterly Report on Form 10-Q and (ii) the audited consolidated financial statements and related notes and management’s discussion and analysis of financial condition and results of operations for the fiscal year ended December 31, 2023 included in our Annual Report on Form 10-K, or the Annual Report, filed with the Securities and Exchange Commission, or the SEC, on February 28, 2024. Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report on Form 10-Q, including information with respect to our plans and strategy for our business and related financing, contains forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the “Risk Factors” sections of this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2023, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a leading clinical-stage precision oncology company enabled by our proprietary synthetic lethality approach to the discovery and development of novel therapeutics. Synthetic lethality (SL) represents a clinically validated approach to drug development. We use our proprietary, genome-wide, CRISPR-enabled SNIPRx platform to systematically discover and develop highly targeted cancer therapies that preferentially treat cancers due to mechanisms of genomic instability, including DNA damage repair. SL arises when a deficiency in either of two genes is tolerated in cells, but simultaneous deficiencies in both genes cause cell death. Cancer cells that contain a mutation in one gene of a SL pair are susceptible to therapeutic intervention targeting the other gene pair.

Our Development Programs

Using our SNIPRx platform, we internally developed four clinical or near-term clinical therapeutic candidates.

PROGRAM	TUMOR LESION	DRUG TARGET	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	RIGHTS
Lunresertib (RP-6306)	CCNE1, FBXW7 + others	PKMYT1	MYTHIC: Camonsertib Combination				REPAIR THERAPEUTICS
			MAGNETIC: Gemcitabine Combination				
			MINOTAUR: FOLFIRI Combination				
			Debio 0123 Wee1i Combination	Debiochem			
			2 Combination ISTs				
Camonsertib (RP-3500)	ATM + 16 STEP ² lesions	ATR	TRESR Monotherapy NSCLC Expansion				REPAIR THERAPEUTICS
			TRESR: Mono (M1) + PARP (Talzoparib; M3) Combination				
			ATTACC: PARP (olaparib/niraparib) Combination				
			TRESR: Gemcitabine (M4) Combination				
RP-1664	TRIM37-high	PLK4	LIONS Monotherapy				REPAIR THERAPEUTICS
RP-3467	BRCA1/2	Polθ ATPase					REPAIR THERAPEUTICS
SNIPRx [®] Platform	Additional SL targets in advanced stages of development						REPAIR THERAPEUTICS
	Discovery and validation of new SL precision oncology targets						Bristol Myers Squibb REPAIR THERAPEUTICS

- Lunresertib (RP-6306)** is a first-in-class, selective and potent oral small molecule inhibitor of PKMYT1 (Protein Kinase Membrane-associated tyrosine- and threonine- specific cdc-2 inhibitory kinase), a cancer target Repair discovered and identified as synthetic lethal with cyclin E1 (CCNE1) amplification, or deleterious alterations in FBXW7 or PPP2R1A in solid tumors such as gynecological, colorectal and upper gastrointestinal malignancies. Lunresertib is currently the sole PKMYT1 inhibitor known to be in clinical trials and is being evaluated alone and in combinations across several clinical trials in the US, UK/EU4, and Canada.

We presented positive initial Phase 1 data from our ongoing Phase 1 MYTHIC trial demonstrating proof of concept for lunresertib alone and in combination with camonsertib. Lunresertib was shown to be well tolerated, with a compelling safety profile. We further presented anti-tumor activity for lunresertib in combination with camonsertib. Initial combination data included an overall RECIST response rate of 50% in the 10 patients with heavily pre-treated gynecological tumors treated at the preliminary recommended Phase 2 dose. In the second half of 2024, we expect to provide MYTHIC data from ovarian

and endometrial cancer expansion cohorts of the lunresertib and camonsertib combination, which may lead us to initiate a first pivotal trial in an indication for lunresertib and camonsertib in 2025. In the third quarter of 2023, we received fast track designation for lunresertib in combination with camonsertib for the treatment of adult patients with CCNE1 amplified, or FBXW7 or PPP2R1A mutated endometrial cancer. In May 2024, we announced that an updated dosing schedule approach based on entry hemoglobin level was agreed to by the U.S. Food and Drug Administration (FDA) in March 2024 and results in improved tolerability of the combination, reducing Grade 3 anemia from 45% in the ENA data cut off of September 2023 to 25% as of March 2024 in patients treated at the RP2D and updated dosing schedule. The FDA has agreed with the RP2D of lunresertib 80mg BID and camonsertib 80mg QD for the MYTHIC trial. Efficacy and tolerability assessment at RP2D is ongoing, and we expect to present data from the dose expansion cohorts in patients with ovarian and endometrial cancer in the fourth quarter of 2024.

We initiated additional Phase 1 combination clinical trials of lunresertib with gemcitabine (MAGNETIC) in December 2021 and with FOLFIRI (MINOTAUR) in August 2022. In May 2024, we announced preliminary safety data for MINOTAUR demonstrating no significant incremental toxicities for the lunresertib and FOLFIRI combination over FOLFIRI alone and an early signal with favorable tolerability in colorectal and other gastrointestinal tumors. We confirmed that efficacy data will be shared at the European Society of Medical Oncology (ESMO) Gastrointestinal (GI) Cancers Congress 2024, taking place in Munich, Germany on June 26-29. In the fourth quarter of 2022, we received fast track designation for lunresertib in combination with gemcitabine for the treatment of adult patients with CCNE1 amplified, or FBXW7, or PPP2R1A mutated platinum resistant ovarian cancer. We are collaborating with the Canadian Cancer Trials Group in an ongoing basket Phase 2 Investigator Sponsored Clinical Trial (IST) that is enrolling patients with selected, advanced cancers receiving lunresertib as combination (NCT05605509). A sub-study to that protocol that will evaluate lunresertib in combination with gemcitabine in patients with CDK4/6 inhibitor treated ER+/HER2- metastatic breast cancer (NCT05601440) was activated more recently and is also enrolling patients. We are also collaborating with University Health Network, Toronto on an investigator-sponsored Phase 1 clinical trial of lunresertib in combination with carboplatin and paclitaxel in TP53 ovarian and uterine cancer (NCT06107868) that is enrolling patients.

In January 2024, we announced our sponsorship of a global trial as a new arm in the ongoing MYTHIC trial combining lunresertib with Debiopharm's Debio 0123, a highly selective, brain penetrant, clinical WEE1 inhibitor. We announced the first patient was dosed with the synergistic lunresertib and Debio 0123 combination in April 2024. This is the first clinical trial inhibiting both PKMYT1 and WEE1.

- 2. Camonsertib (RP-3500)** is a potent and selective oral small molecule inhibitor of ATR (Ataxia-Telangiectasia and Rad3-related protein kinase) in clinical development for the treatment of solid tumors with specific DNA damage repair-related genomic alterations, including those in the ATM gene (ataxia telangiectasia mutated kinase).

We presented initial clinical data from the Phase 1/2 TRESR and ATTACC clinical trials evaluating camonsertib in combination with three poly (ADP-ribose) polymerase (PARP) inhibitors - talazoparib, niraparib, and olaparib. Camonsertib demonstrated 48% overall CBR in patients with advanced solid tumors across tumor types regardless of choice of PARP inhibitor or platinum resistance, with a favorable safety and tolerability profile. The Phase 1/2 TRESR and ATTACC clinical trials are fully-enrolled and we expect to complete these trials in 2024.

In June 2022, we entered into a worldwide license and collaboration agreement with Hoffmann-La Roche Inc. and F. Hoffmann-La Roche Ltd (collectively "Roche") for the development and commercialization of camonsertib, which resulted in an initial \$125 million upfront payment. In February 2024, we received a \$40 million milestone payment from Roche upon dosing of the first patient with camonsertib in Roche's TAPISTRY trial. Since inception of the Roche camonsertib collaboration, we have received a cumulative total of \$182.6 million, including the upfront payment, the milestone payment, as well as additional reimbursements from Roche. On February 7, 2024, we received written notice from Roche of their election to terminate the Roche camonsertib collaboration. The termination became effective in May 2024, at which time we regained global development and commercialization rights for camonsertib from Roche. We engaged in transition activities related to the termination in the first half of 2024 and announced an expansion of the TRESR clinical trial as a Phase 2 study evaluating camonsertib monotherapy in approximately 20 patients with ATM-mutated (ATMm) NSCLC, supported by early, promising camonsertib monotherapy signal in patients with ATMm NSCLC from the ongoing Phase 1/2 TRESR trial. We expect to report initial data in 2025.

- 3. RP-1664** is a first-in-class, highly selective, oral PLK4 inhibitor designed to harness the synthetic lethal relationship with TRIM37 amplification or overexpression in solid tumors. Tumors rely on PLK4 for centriole biogenesis in S-phase of the cell cycle when TRIM37, an E3 ligase that reduces pericentriolar material, is high. Preclinical studies demonstrate that RP-1664 selectively inhibits PLK4 and drives potent synthetic lethality in TRIM37-high and other biomarkers tumor models,

both in vitro and in vivo. Elevated TRIM37 is a feature found across a range of solid tumors and in approximately 80% of high-grade neuroblastoma. RP-1664 is the only selective PLK4 inhibitor known to be in the clinic.

We reported comprehensive preclinical data for RP-1664 in November 2023, including deep tumor growth inhibition and regressions in multiple TRIM37-high solid tumor or neuroblastoma xenograft models. The preclinical in vivo animal model evaluations were performed both internally and in collaboration with Children's Hospital of Philadelphia (CHOP). In February 2024, we dosed the first patient in the LIONS (PLK4 Inhibitor in Advanced Solid Tumors) clinical trial, a multicenter, open-label Phase 1 clinical trial to investigate safety, pharmacokinetics, pharmacodynamics, and the preliminary efficacy of RP-1664. After evaluating safety in adult patients with recurrent solid tumors in the LIONS clinical trial, we expect to move into a Phase 1/2 clinical trial in high risk, recurrent pediatric neuroblastoma, in which children have limited treatment options and high prevalence of TRIM37-altered tumors.

4. **RP-3467** is a potential best-in-class inhibitor of adenosinetriphosphatase (ATPase) activity on the helicase domain of DNA polymerase theta (Polθ). Polθ is a synthetic lethal target associated with homologous recombination deficiency (HRD) tumors, including those with BRCA1/2 mutations or other genomic alterations. Data suggest that RP-3467 works effectively and synergistically with therapies that result in double stranded DNA breaks, such as PARP inhibition, radioligand therapy (RLT) and multiple chemotherapies and antibody-drug conjugates (ADCs). Initial data suggest that Polθ inhibition may interfere with mechanisms central to the development of PARPi resistance, which could be relevant to currently marketed PARP 1/2 inhibitors and the emerging PARP1-selective inhibitors. We also reported comprehensive preclinical data for RP-3467 in November 2023, in which RP-3467 demonstrated complete, sustained regressions in combination with PARP inhibitors and compelling anti-tumor activity in combination with RLT and chemotherapy. We expect to initiate a Phase 1 trial of RP-3467 in the second half of 2024.

Recent Developments

- **Lunresertib (RP-6306)**
 - o On track for a potential registrational trial decision in gynecologic expansion cohorts in the fourth quarter of 2024 based on the Phase 1 expansion in MYTHIC trial evaluating lunresertib in combination with camonsertib in patients harboring CCNE1 amplification or FBXW7 or PPP2R1A deleterious alterations. Grade 3 anemia has been significantly reduced to 25% as of the March 2024 cut-off date in patients treated at the RP2D and updated dosing schedule, from 45% as previously presented at the September 2023 data cut-off date. The FDA has agreed with the RP2D of lunresertib 80mg BID and camonsertib 80mg QD. Efficacy and tolerability assessment at RP2D is ongoing, and we expect to present data from the dose expansion cohorts in patients with ovarian and endometrial cancer in the fourth quarter of 2024.
 - o First patient was dosed in April 2024 in the Phase 1 MYTHIC clinical trial evaluating lunresertib in combination with Debio 0123, a highly selective, brain-penetrant, clinical WEE1 inhibitor, in advanced solid tumors harboring CCNE1 amplification or FBXW7 or PPP2R1a deleterious alterations. The primary endpoints are safety, tolerability and RP2D, as well as preliminary efficacy of the combination. We are expected to report initial data from this trial in 2025.
 - o Initial data from the Phase 1 MINOTAUR trial evaluating lunresertib in combination with FOLFIRI for the treatment of advanced solid tumors demonstrated no significant incremental toxicities in the combination of lunresertib and FOLFIRI over FOLFIRI alone. In addition, we have observed favorable tolerability in colorectal and other gastrointestinal tumors, unlike some other agents combined with irinotecan. This data will be presented at the ESMO GI Cancers Congress 2024, taking place in Munich, Germany on June 26-29.
- **Camonsertib (RP-3500)**
 - o Regained global development and commercialization rights for camonsertib from Roche, effective May 7, 2024. Since inception of the Roche camonsertib collaboration, Repare has earned a cumulative total of \$182.6 million from Roche, including the upfront and milestone payments, in addition to certain additional reimbursements from Roche.
 - o Initiating Phase 2 TRESR expansion in approximately 20 patients with ATMm NSCLC, supported by early, promising camonsertib monotherapy signal in patients with ATMm NSCLC from the ongoing Phase 1/2 TRESR trial. Repare is expected to report initial data in 2025.
- **RP-1664**
 - o First patient dosed in the multicenter, open-label Phase 1 dose escalation trial LIONS of its PLK4 inhibitor, RP-1664, in adult and adolescent patients with TRIM37-high and other biomarkers in February 2024.

- **RP-3467**
 - o Initiation of a Phase 1 dose finding trial of RP-3467, a potential best-in-class Polθ ATPase inhibitor, is expected in the second half of 2024.
- **Other Highlights**
 - o In March 2024, Bristol-Myers Squibb exercised its one remaining option to in-license an undruggable target for a combined total of five druggable targets and one undruggable target over the course of the collaboration.
 - o In April 2024, Repare announced the appointment of Steven H. Stein, M.D., Chief Medical Officer of Incyte Corporation, to Repare's Board of Directors, effective as of June 17, 2024, the date of the Company's upcoming annual meeting of shareholders (the "Annual Meeting"). The Company also announced that Todd Foley has decided not to stand for re-election as a director of the Company following the end of his current term as a Class I director on the date of the Annual Meeting, after serving more than seven years on the Board.

Liquidity Overview

Since our inception in September 2016, we have focused primarily on raising capital, organizing and staffing our company, conducting discovery and research activities, identifying potential SL gene pairs, establishing and protecting our intellectual property portfolio including for our proprietary SNIPRx platform, developing and progressing our product candidates through preclinical studies and preparing for clinical trials and establishing arrangements with third parties for the manufacture of initial quantities of our product candidates and component materials.

As of March 31, 2024, we had cash and cash equivalents and marketable securities on hand of \$237.0 million. We believe that our cash, cash equivalents, and marketable securities will be sufficient to fund our anticipated operating and capital expenditure requirements at least into mid-2026. We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our capital resources sooner than we expect.

Since inception, we have incurred significant operating losses. Our net losses were \$93.8 million and \$29.0 million for the years ended December 31, 2023 and 2022, respectively, and net income of \$13.2 million for the three months ended March 31, 2024. As of March 31, 2024, we had an accumulated deficit of \$319.9 million.

We expect to continue to incur significant and increasing expenses and operating losses for the foreseeable future, as we advance our product candidates through preclinical and clinical development and seek regulatory approvals, manufacture drug product and drug supply, maintain and expand our intellectual property portfolio. Our net losses are also expected to be impacted as we hire additional personnel, pay for accounting, audit, legal, regulatory and consulting services, and pay costs associated with maintaining compliance with Nasdaq listing rules and the SEC requirements, directors and officers, or D&O, insurance, investor and public relations activities and other expenses associated with operating as a public company. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our preclinical studies, our clinical trials, our expenditures on other research and development activities, and our revenue and expenses recognized from collaboration and license agreements.

We do not have any products approved for sale. We will not generate revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for our product candidates, if ever. As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. Until we can generate significant revenue from product sales, if ever, we expect to finance our operations through a combination of public or private equity offerings and debt financings or other sources, such as potential collaboration agreements, strategic alliances and licensing arrangements. We may be unable to raise additional funds or enter into such other agreements or arrangements when needed on acceptable terms, or at all. Our failure to raise capital or enter into such agreements as, and when, needed, could have a negative effect on our business, results of operations and financial condition.

Macroeconomic Considerations

Unfavorable conditions in the economy in the United States, Canada and abroad may negatively affect the growth of our business and our results of operations. For example, macroeconomic events, including health pandemics, rising inflation, changes in interest rates and foreign currency exchange rates, banking crises or disruptions in access to bank deposits or lending commitments, natural disasters, geopolitical instability resulting from war, terrorism and other violence, as well as supply chain disruptions have led to economic uncertainty globally and could impact our overall business operations. The effect of macroeconomic conditions may not be fully reflected

in our results of operations until future periods. If, however, economic uncertainty increases or the global economy worsens, our business, financial condition and results of operations may be harmed.

In addition, because some of our manufacturers and suppliers are located in China, we are exposed to the possibility of product supply disruption and increased costs in the event of changes in the policies, laws, rules and regulations of the United States or Chinese governments, as well as political unrest or unstable economic conditions in China. For example, trade tensions between the United States and China have been escalating in recent years. Most notably, several rounds of U.S. tariffs have been placed on Chinese goods being exported to the United States. Each of these U.S. tariff impositions against Chinese exports was followed by a round of retaliatory Chinese tariffs on U.S. exports to China. Our components may in the future be subject to these tariffs, which could increase our manufacturing costs and could make our products, if successfully developed and approved, less competitive than those of our competitors whose inputs are not subject to these tariffs. We may otherwise experience supply disruptions or delays, and although we carefully manage our supply and lead-times, our suppliers may not continue to provide us with clinical supply in our required quantities, to our required specifications and quality levels or at attractive prices. In addition, certain Chinese biotechnology companies and CMOs may become subject to trade restrictions, sanctions, other regulatory requirements, or proposed legislation by the U.S. government, which could restrict or even prohibit our ability to work with such entities, thereby potentially disrupting the supply of material to us. Such disruption could have adverse effects on the development of our product candidates and our business operations. In addition, the recently proposed BIOSECURE Act introduced in House of Representatives, as well as a substantially similar bill in the Senate, targets certain Chinese biotechnology companies. If these bills become law, or similar laws are passed, they would have the potential to severely restrict the ability of companies to contract with certain Chinese biotechnology companies of concern without losing the ability to contract with, or otherwise receive funding from, the U.S. government.

For further discussion of the potential impacts of macroeconomic events on our business, financial condition, and operating results, see the section titled “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2023.

Components of Results of Operations

Revenue

To date, we have not recognized any revenue from product sales, and we do not expect to generate any revenue from the sale of products in the foreseeable future. If our development efforts for our product candidates are successful and result in regulatory approval, or license agreements with third parties, we may generate revenue in the future from product sales. However, there can be no assurance as to when we will generate such revenue, if at all.

The following table presents revenue from our collaboration agreements:

	Three Months Ended March 31,	
	2024	2023
	(in thousands)	
Roche Collaboration and License Agreement	\$ 49,815	\$ 5,312
Bristol-Myers Squibb Collaboration and License Agreement	2,589	366
Total revenue	\$ 52,404	\$ 5,678

Collaboration and License Agreement with Hoffmann-La Roche Inc. and F. Hoffmann-La Roche Ltd

On June 1, 2022, we entered into a collaboration and license agreement, or the Roche Agreement, with Roche regarding the development and commercialization of our product candidate camonsertib (also known as RP-3500) and specified other ATR inhibitors, which we refer to as the Licensed Products.

Under the Roche Agreement, we granted Roche a worldwide, perpetual, exclusive, sublicensable license to develop, manufacture, and commercialize the Licensed Products. Roche assumed all subsequent development of camonsertib with the potential to expand development into additional tumors and multiple combination studies. We agreed to complete specified ongoing clinical trials in accordance with the development plan in the Roche Agreement, as well as ongoing investigator sponsored trials, or together, the Continuing Trials, at our expense. We also retained the right to conduct specified clinical trials of camonsertib in combination with our PKMYT1 compound (also known as RP-6306).

In March 2024, we received a payment of \$4.0 million for revisions to the clinical development plan under the Roche Agreement, of which \$2.1 million was previously recorded as a receivable on our balance sheet at December 31, 2023.

In February 2024, we further received a \$40 million milestone payment from Roche that was earned upon dosing of the first patient with camonsertib in Roche's Phase 2 TAPISTRY trial in January 2024.

Deferred revenue pertaining to the Roche Agreement	Completion of Continuing Trials	
	(in thousands)	
Balance as of December 31, 2023	\$	9,463
Increase in collaboration revenue		41,425
Recognition as revenue, as the result of performance obligations satisfied		(49,815)
Balance as of March 31, 2024	\$	1,073
Classified as short-term	\$	1,073

We recognized \$49.8 million and \$5.3 million for the three months ended March 31, 2024 and 2023, respectively, as revenue associated with the Roche Agreement in relation to (i) the recognition of revenue from the \$40.0 million milestone achievement in the first quarter of 2024, as well as (ii) the partial recognition of deferred revenue for research and development services performed towards the completion of the Continuing Trials during the period.

On February 7, 2024, we received written notice from Roche of their election to terminate the Roche Agreement following a review of Roche's pipeline and evolving external factors. The termination became effective May 7, 2024, at which time we regained global development and commercialization rights for camonsertib from Roche. As such, all deferred revenue related to the Roche Agreement is expected to be recognized in the second quarter of 2024.

As of March 31, 2024, there was \$1.1 million (December 31, 2023 - \$9.4 million) of deferred revenue related to the Roche Agreement, of which \$1.1 million (December 31, 2023 - \$7.7 million) was classified as current and nil (December 31, 2023 - \$1.7 million) was classified as non-current in the condensed consolidated balance sheet based on the period the services to complete the Continuing Trials are expected to be performed.

Collaboration and License Agreement with Bristol-Myers Squibb Company

In May 2020, we entered into a collaboration and license agreement, or the BMS Agreement, with the Bristol-Myers Squibb Company, or Bristol-Myers Squibb, pursuant to which we and Bristol-Myers Squibb have agreed to collaborate in the research and development of potential new product candidates for the treatment of cancer. We provided Bristol-Myers Squibb access to a selected number of our existing screening campaigns and novel campaigns. We were responsible for carrying out early-stage research activities directed to identifying potential targets for potential licensing by Bristol-Myers Squibb. The collaboration consisted of programs directed to both druggable targets and to targets commonly considered undruggable to traditional small molecule approaches. In the event that Bristol-Myers Squibb elects to obtain an exclusive license for the subsequent development, manufacturing and commercialization of a program, Bristol-Myers Squibb will then be solely responsible for all such worldwide activities.

Although the collaboration term expired in November 2023, the BMS Agreement will not expire until, on a licensed product-by-licensed product and country-by-country basis, the expiration of the applicable royalty term and in its entirety upon expiration of the last royalty term. Either party may terminate earlier upon an uncured material breach of the agreement by the other party, or the insolvency of the other party. Additionally, Bristol-Myers Squibb may terminate the BMS Agreement for any or no reason on a program-by-program basis upon specified written notice. We are eligible to receive up to \$301.0 million in total milestones on a program-by-program basis, subject upon the achievement of certain specified research, development, regulatory and commercial milestones. We are further entitled to a tiered percentage royalty on annual net sales ranging from high-single digits to low-double digits, subject to certain specified reductions.

In March 2024, Bristol-Myers Squibb exercised its one remaining option for an undruggable target for a combined total of five druggable targets and one undruggable target over the course of the collaboration. As a result, we recognized the remaining deferred revenue of \$2.6 million as revenue related to undruggable targets, including an option fee payment of \$0.1 million.

Operating Expenses

Debiopharm Collaborative Arrangement

In January 2024, we entered into the Debio collaboration agreement with Debiopharm, a privately-owned, Swiss-based biopharmaceutical company, with the aim to explore the synergy between our compound, lunresertib, and Debiopharm's compound, Debio 0123, a WEE1 inhibitor. We are collaborating with Debiopharm on the development of a combination therapy, with us sponsoring the global study, and will share all costs equally. Both parties are each supplying their respective drugs and retain all commercial rights

to their respective compounds, including as monotherapy or as combination therapies. The activities associated with the collaboration are coordinated by a joint steering committee, which is comprised of an equal number of representatives from both parties.

Based on the terms of the Debio collaboration agreement, we concluded that the Debio collaboration agreement meets the requirements of a collaboration within the guidance of ASC 808, Collaborative Arrangements, as both parties are active participants in the combination trial and are exposed to significant risks and rewards depending on the success of the combination trial. Accordingly, the net costs associated with the co-development are expensed as incurred and recognized within research and development expenses in the consolidated statement of operations and comprehensive income (loss).

During the three-month period ended March 31, 2024, we recognized \$0.5 million in net research and development costs with regards to the Debio collaboration agreement and recorded a receivable from Debiopharm of \$0.5 million in other current receivables, reflecting the 50/50 cost sharing terms.

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for our research activities, including our drug discovery efforts and the development of our product candidates, partially offset by development cost reimbursements from collaborative arrangements and fully refundable Canadian research and development tax credits. We expense research and development costs as incurred, which include:

- external research and development expenses incurred under agreements with contract research organizations, (CROs), as well as investigative sites and consultants that conduct our clinical trials, preclinical studies and other scientific development services;
- employee-related expenses, including salaries, bonuses, benefits, share-based compensation, and other related costs for those employees involved in research and development efforts;
- costs related to manufacturing material for our preclinical studies and clinical trials, including fees paid to contract manufacturing organizations, (CMOs);
- laboratory supplies and research materials;
- upfront, milestone and maintenance fees incurred under license, acquisition and other third-party agreements;
- costs related to compliance with regulatory requirements; and
- facilities, depreciation, scientific advisory board and other allocated expenses, which include direct and allocated expenses for rent, maintenance of facilities and equipment, insurance, equipment and software.

Costs for certain activities are recognized based on an evaluation of the progress to completion of specific tasks using data such as information provided to us by our vendors and analyzing the progress of our studies or other services performed. Significant judgment and estimates are made in determining the accrued expense or prepaid balances at the end of any reporting period.

We characterize research and development costs incurred prior to the identification of a product candidate as discovery costs. We characterize costs incurred once a product candidate has been identified as development costs.

Our direct external research and development expenses consist primarily of fees paid to outside consultants, CROs, CMOs and research laboratories in connection with our preclinical development, process development, manufacturing and clinical development activities. Our direct external research and development expenses also include fees incurred under license, acquisition, and option agreements. We track these external research and development costs on a program-by-program basis once we have identified a product candidate.

We do not allocate employee costs, costs associated with our discovery efforts, laboratory supplies, and facilities, including depreciation or other indirect costs, to specific programs because these costs are deployed across multiple programs and, as such, are not separately classified. We use internal resources primarily to conduct our research and discovery activities as well as for managing our preclinical development, process development, manufacturing, and clinical development activities.

The following table summarizes our research and development costs:

	Three Months Ended March 31,	
	2024	2023
(in thousands)		
Discovery costs		
Direct external costs	\$ 1,726	\$ 1,611
Laboratory supplies and research materials	998	906
Personnel related costs	3,186	3,122
Facilities related costs	405	364
Other costs	912	911
	<u>7,227</u>	<u>6,914</u>
Development		
Direct external costs		
Camonsertib program*	3,980	5,956
Lunresertib program*	8,107	6,021
RP-1664 program	1,596	1,298
RP-3467 and Pol0 program	1,555	1,751
Personnel related costs	9,659	9,084
Facilities related costs	208	202
Other costs*	1,432	983
Debiopharm development cost reimbursement	(500)	—
	<u>26,037</u>	<u>25,295</u>
R&D tax credits	<u>(294)</u>	<u>(379)</u>
Total research and development costs	<u>\$ 32,970</u>	<u>\$ 31,830</u>

*Certain amounts have been reclassified for presentation purposes.

The successful development of our product candidates is highly uncertain. We plan to substantially increase our research and development expenses for the foreseeable future as we continue the development of our product candidates and manufacturing processes and conduct discovery and research activities for our preclinical programs. We cannot determine with certainty the timing of initiation, the duration, or the completion costs of current or future preclinical studies and clinical trials of our product candidates due to the inherently unpredictable nature of preclinical and clinical development. Clinical and preclinical development timelines, the probability of success and development costs can differ materially from expectations. We anticipate that we will make determinations as to which product candidates to pursue and how much funding to direct to each product candidate on an ongoing basis in response to the results of ongoing and future preclinical studies and clinical trials, regulatory developments, and our ongoing assessments as to each product candidate's commercial potential. We will need to raise substantial additional capital in the future. Our clinical development costs are expected to increase significantly as we commence clinical trials. We anticipate that our expenses will increase substantially, particularly due to the numerous risks and uncertainties associated with developing product candidates, including the uncertainty of:

- the scope, rate of progress, and expenses of our ongoing research activities as well as any preclinical studies, clinical trials and other research and development activities;
- establishing an appropriate safety profile;
- successful enrollment in and completion of clinical trials;
- whether our product candidates show safety and efficacy in our clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- commercializing product candidates, if and when approved, whether alone or in collaboration with others; and
- continued acceptable safety profile of products following any regulatory approval.

Any changes in the outcome of any of these variables with respect to the development of our product candidates in preclinical and clinical development could mean a significant change in the costs and timing associated with the development of these product candidates. We may never succeed in achieving regulatory approval for any of our product candidates. We may obtain unexpected results from our clinical trials. We may elect to discontinue, delay or modify clinical trials of some product candidates or focus on other product candidates. For example, if the FDA, the European Medicines Agency, (EMA), or another regulatory authority were to delay

our planned start of clinical trials or require us to conduct clinical trials or other testing beyond those that we currently expect or if we experience significant delays in enrollment in any of our ongoing and planned clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development of that product candidate.

General and Administrative Expenses

General and administrative expense consists primarily of employee related costs, including salaries, bonuses, benefits, share-based compensation and other related costs, as well as expenses for outside professional services, including legal, accounting and audit services and other consulting fees, rent expense, directors and officers insurance expenses, investor and public relations expenses and other general administrative expenses.

We anticipate that our general and administrative expenses will increase in the future as we increase our headcount to support our continued research activities and development of our product candidates. We also anticipate that we will continue to incur significant accounting, audit, legal, regulatory, compliance and directors' and officers' insurance costs as well as investor and public relations expenses, including with our transition from smaller reporting company status at the end of 2023.

Other Income (Expense), Net

Other income (expense), net consists primarily of realized and unrealized gains and losses on foreign exchange, interest income earned on cash and cash equivalents and marketable securities, and other expenses such as interest and bank charges.

Realized and unrealized gains and losses on foreign exchange consist of realized and unrealized gains and losses from holding cash and foreign currency denominated other receivables, accounts payable, accrued expenses and other current liabilities as well as operating lease liabilities.

Results of Operations

Comparison of the Three Months Ended March 31, 2024 and 2023

The following table summarizes our results of operations for the three months ended March 31, 2024 and 2023:

	Three Months Ended March 31,		Change
	2024	2023 (in thousands)	
Revenue:			
Collaboration agreements	\$ 52,404	\$ 5,678	\$ 46,726
Operating expenses:			
Research and development, net of tax credits	32,970	31,830	1,140
General and administrative	8,618	8,529	89
Total operating expenses	41,588	40,359	1,229
Income (loss) from operations	10,816	(34,681)	45,497
Other income (expense), net			
Realized and unrealized gain (loss) on foreign exchange	31	(56)	87
Interest income	2,968	3,427	(459)
Other expense	(24)	(15)	(9)
Total other income, net	2,975	3,356	(381)
Income (loss) before income taxes	13,791	(31,325)	45,116
Income tax expense	(629)	(3,616)	2,987
Net income (loss)	\$ 13,162	\$ (34,941)	\$ 48,103

Revenue

Revenue was \$52.4 million for the three months ended March 31, 2024, compared to \$5.7 million for the three months ended March 31, 2023. The increase of \$46.7 million was due to:

- a \$44.5 million increase in revenue recognized under the Roche Agreement as a result of the \$40.0 million milestone achievement in the first quarter of 2024 and higher deferred revenue recognized for the completion of the Continuing Trials; and

- a \$2.2 million increase in revenue recognized under the BMS Agreement as a result of the deferred revenue recognized related to the exercise of its one remaining option for an undruggable target.

Research and Development Expenses, Net of Tax Credits

Research and development expenses were \$33.0 million for the three months ended March 31, 2024, compared to \$31.8 million for the three months ended March 31, 2023. The increase of \$1.2 million was primarily due to:

- a \$2.1 million increase in direct external costs with the advancement of clinical trials for lunresertib;
- a \$2.0 million decrease in direct external costs of the camonsertib program for the Phase 1/2 TRESR and ATTACC clinical trials that are fully enrolled and expected to be completed in 2024;
- a \$0.9 million increase in other research and material expense including IT related costs;
- a \$0.6 million increase in personnel-related costs, including a \$0.2 million increase in share-based compensation; and
- a \$0.5 million increase in the Debiopharm development cost reimbursement.

General and Administrative Expenses

General and administrative expenses were \$8.6 million for the three months ended March 31, 2024, compared to \$8.5 million for the three months ended March 31, 2023. The increase of \$0.1 million in general and administrative expenses consisted of:

- a \$0.6 million decrease in our D&O insurance premium;
- a \$0.4 million increase in personnel related costs, including a \$0.2 million increase in share-based compensation; and
- a \$0.3 million increase in other general and administrative expenses.

Other Income (Expense), Net

Other income, net was \$3.0 million and \$3.4 million for the three months ended March 31, 2024 and 2023, respectively. The decrease of \$0.4 million was primarily attributable to lower sums invested in cash and cash equivalents and marketable securities.

Income Tax Expense

Income tax expense were \$0.6 million and \$3.6 million for the three months ended March 31, 2024 and 2023, respectively. The decrease of \$3.0 million was primarily due to the issuance of IRC Section 174 guidance on September 8, 2023.

Liquidity and Capital Resources

Since our inception, we have not recognized any revenue from product sales and have incurred operating losses and negative cash flows from our operations. We have not yet commercialized any product and we do not expect to generate revenue from sales of any products for several years, if at all.

In June 2020, we completed our IPO whereby we raised \$232.0 million, net of underwriting commissions and offering expenses. In November 2021, we completed a follow-on offering whereby we raised \$94.3 million, net of underwriting commissions and offering expenses. Prior to our IPO, we had funded our operations primarily through equity financings, having raised an aggregate of approximately \$135.2 million of gross proceeds from the sale of our preferred shares and \$15.0 million of gross proceeds from the issuance of a warrant to acquire our common shares. We have also received initial upfront and additional payments of approximately \$60.5 million in the aggregate from partnerships with Ono for our Polθ ATPase inhibitor program and Bristol-Myers Squibb for research and development of potential new product candidates for the treatment of cancer. In June 2022, we entered into a collaboration and license agreement with Roche for camonsertib and have received a cumulative total of \$182.6 million to date under the terms of the Roche Agreement, including an upfront payment of \$125.0 million, a milestone payment of \$40 million and additional reimbursements from Roche.

In August 2022, we entered into a Common Shares Sale Agreement (the Sales Agreement), with Cowen and Company, LLC. Under the Sales Agreement, we may sell up to \$125.0 million in common shares. No shares have been issued under the Sales Agreement as of the date of this Quarterly Report on Form 10-Q.

We expect to incur significant expenses and operating losses for the foreseeable future as we advance our product candidates through preclinical and clinical development, seek regulatory approval and pursue commercialization of any approved product candidates and we will continue to incur additional costs associated with operating as a public company, including with our transition from smaller reporting company status at the end of 2023. We expect that our research and development and general and administrative costs will increase in connection with our planned research and development activities.

Beginning in 2022, the Tax Cuts and Jobs Act of 2017 eliminated the option to deduct certain U.S.-based research and development expenditures in the current fiscal year and required taxpayers to amortize them over five years pursuant to Section 174 of the Internal Revenue Code of 1986, as amended (IRC). This provision increased our 2023 and 2022 cash payments of income taxes significantly as compared to 2021 in compliance with IRC Section 174. In September 2023, new interim guidance was issued by the Department of Treasury and the Internal Revenue Service on IRC Section 174 that supports the deduction of such expenses. An income tax receivable in the amount of \$12.5 million as of March 31, 2024 reflects the overpayment of tax installments by our U.S. subsidiary (net of a \$4.8 million refund received in October 2023). Any changes to tax legislation may materially affect our cash flows. Changes in our tax provisions or an increase in our tax liabilities, whether due to changes in applicable laws and regulations or our interpretation or application thereof, could have a material adverse effect on our financial position, results of operations and/or cash flows.

As of March 31, 2024, our cash and cash equivalents and marketable securities on hand was \$237.0 million. We believe that our existing cash and cash equivalents and marketable securities on hand will be sufficient to fund our anticipated operating and capital expenditure requirements at least into mid-2026. We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our capital resources sooner than we expect.

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

- the initiation, timing, costs, progress and results of our product candidates, including our ongoing Phase 1 clinical trials of lunresertib;
- the progress of preclinical development and possible clinical trials of our current earlier-stage programs;
- the scope, progress, results and costs of our research programs and preclinical development of any additional product candidates that we may pursue;
- the development requirements of other product candidates that we may pursue;
- our headcount growth and associated costs as we expand our research and development and establish a commercial infrastructure;
- the timing and amount of milestone and royalty payments that we are required to make or eligible to receive under our current or future collaboration agreements;
- the outcome, timing and cost of meeting regulatory requirements established by the FDA, EMA and other regulatory authorities;
- the costs and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution, for any of our product candidates for which we or our collaborators receive marketing approval;
- the cost of expanding, maintaining and enforcing our intellectual property portfolio, including filing, prosecuting, defending and enforcing our patent claims and other intellectual property rights;
- the cost of defending potential intellectual property disputes, including patent infringement actions brought by third parties against us or any of our product candidates;
- the effect of competing technological and market developments;
- the cost and timing of completion of commercial-scale manufacturing activities;
- the extent to which we partner our programs, acquire or in-license other product candidates and technologies or enter into additional strategic collaborations;
- the revenue, if any, received from commercial sales of lunresertib, camonsertib and any future product candidates for which we or our collaborators receive marketing approval; and
- the costs of operating as a public company.

Until such time, if ever, as we can generate substantial product revenues to support our cost structure, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations and other similar arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our shareholders will be or could be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common shareholders. Debt financing and equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise funds through collaborations, or other similar arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us and/or may reduce the value of our common shares. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market our product candidates even if we would otherwise prefer to develop and market such product candidates ourselves.

Cash Flows

Comparison of the Three Months Ended March 31, 2024 and 2023

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

	Three Months Ended March 31,		Change
	2024	2023 (in thousands)	
Net cash provided by (used in) operating activities	\$ 11,932	\$ (31,786)	\$ 43,718
Net cash used in investing activities	(20,316)	(6,686)	(13,630)
Net cash provided by financing activities	375	413	(38)
Effect of exchange rate fluctuations on cash held	(42)	(1)	(41)
Net Decrease In Cash And Cash Equivalents	<u>\$ (8,051)</u>	<u>\$ (38,060)</u>	<u>\$ 30,009</u>

Operating Activities

Net cash provided by operating activities was \$11.9 million for the three months ended March 31, 2024, reflecting a net income of \$13.2 million, non-cash charges of \$6.3 million, offset by a net change of \$7.6 million in our net operating assets. The non-cash charges primarily consist of share-based compensation for option and restricted share unit grants to employees, as well as depreciation expense, and non-cash lease expense offset by the net accretion of marketable securities. The change in our net operating assets was primarily due to a decrease of \$10.9 million in deferred revenue and \$3.6 million in accrued expenses and other current liabilities offset by an increase of \$1.1 million in other current receivables, \$1.3 million in prepaid expenses and \$4.4 million in accounts payable.

Net cash used in operating activities was \$31.8 million for the three months ended March 31, 2023, reflecting a net loss of \$34.9 million, a net change of \$2.1 million in our net operating assets, offset by non-cash charges of \$5.2 million. The non-cash charges primarily consist of share-based compensation for option and restricted share unit grants to employees, as well as depreciation expense, and non-cash lease expense offset by the net accretion of marketable securities. The change in our net operating assets was primarily due to a decrease of \$6.5 million in accrued expenses and other current liabilities, operating lease liability, and deferred revenue as well as an increase of \$2.5 million in collaboration revenue receivable, offset by an increase of \$5.6 million in accounts payable and income taxes payable as well as a decrease of \$1.3 million in prepaid expenses.

The \$43.7 million increase in cash provided by operating activities for the three months ended March 31, 2024 compared to the three months ended March 31, 2023 is primarily due to the \$40.0 million milestone achievement in the first quarter of 2024 under the Roche Agreement.

Investing Activities

Net cash used in investing activities was \$20.3 million for the three months ended March 31, 2024 and resulted primarily from the purchases of marketable securities offset by proceeds on maturities of marketable securities.

Net cash used in investing activities was \$6.7 million for the three months ended March 31, 2023 and resulted primarily from the purchases of marketable securities and property and equipment offset by proceeds on maturities of marketable securities.

Financing Activities

Net cash provided by financing activities was \$0.4 million consisting of net proceeds from the issuance of common shares under the ESPP for the three months ended March 31, 2024 and 2023.

Material Cash Requirements

There were no material changes to our material cash requirements during the three months ended March 31, 2024 from those described under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the Annual Report.

Critical Accounting Estimates

This management’s discussion and analysis is based on our unaudited condensed consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these unaudited condensed consolidated financial statements requires us to make judgments and estimates that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements and the reported amounts of expenses during the reported periods. We base our estimates on historical experience, known trends and events, and various other factors that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. On an ongoing basis, we evaluate our judgments and estimates in light of changes in circumstances, facts, and experience. The effects of material revisions in estimates, if any, will be reflected in the consolidated financial statements prospectively from the date of change in estimates.

There have been no significant changes to our critical accounting estimates from those described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in the Annual Report.

Recently Issued Accounting Pronouncements

See Note 2 to our unaudited condensed consolidated financial statements included in this Quarterly Report for a description of recent issued accounting pronouncements not yet adopted.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to certain risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position to adverse changes in financial market prices and rates. Our market risk exposure is primarily related to fluctuations in interest rates and foreign currency exchange rates.

Interest Rate Risk

Interest-earning instruments carry a degree of interest rate risk. In the three months ended March 31, 2024, we earned \$3.0 million in interest income from cash balances held in cash and cash equivalents and marketable securities. As of March 31, 2024, we have a balance of \$237.0 million in cash, money market funds, commercial paper and corporate debt securities. Our investment policy limits investment instruments to investment-grade securities with the objective to preserve capital and to maintain liquidity until the funds can be used in business operations. We do not have in place any tools to manage our interest rate risk. The risk of a sudden, significant change in market interest rates relative to the interest rates earned on our bank accounts and marketable securities having an impact on our results of operations or cash flows is limited owing to the relative short-term nature of these investments.

Foreign Currency Exchange Risk

Our reporting and functional currency is the U.S. dollar. Assets and liabilities denominated in currencies other than the U.S. dollar are translated into U.S. dollar at exchange rates in effect at each balance sheet date. Income items and expenses are translated using average exchange rate in effect for the relevant period.

We incur a portion of our expenses in Canadian dollars, as well as other currencies to a lesser extent. A change in the relative value of the U.S. dollar to the Canadian dollar and other currencies may negatively affect our results of operations, financial position or cash flows. We have not engaged in the hedging of foreign currency transactions to date, although we may choose to do so in the future. We do, however, keep expected Canadian dollar cash requirements in Canadian dollars to form a natural hedge. We are exposed to currency risk through our cash, other current receivables, accounts payable, accrued expenses and other current liabilities, and operating lease liabilities denominated in Canadian dollars. Based on our Canadian dollar net exposure as of March 31, 2024, and assuming all other variables remain constant, a 10% depreciation in the relative value of the U.S. dollar to the Canadian dollar would result in a decrease of approximately \$0.3 million on our net income.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

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

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2024. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of such date, our disclosure controls and procedures are effective.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act that occurred 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 disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving the desired control objectives. Our management recognizes that any control system, no matter how well designed and operated, is based upon certain judgments and assumptions and cannot provide absolute assurance that its objectives will be met. Similarly, an evaluation of controls cannot provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been 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.

Investing in our common shares involves a high degree of risk. In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the risks described in the Annual Report, including the disclosure therein under Part I, Item 1A, "Risk Factors," before deciding whether to invest in our common shares. These are not the only risks facing our business. Other risks and uncertainties that we are not currently aware of or that we currently consider immaterial also may materially adversely affect our business, financial condition and future results. Risks we have identified but currently consider immaterial could still also materially adversely affect our business, financial condition and future results of operations if our assumptions about those risks are incorrect or if circumstances change.

There were no material changes during the period covered in this report to the risk factors previously disclosed in Part I, Item 1A of the Annual Report.

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

(a) Recent Sales of Unregistered Securities

None.

(b) Issuer Purchases of Equity Securities

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

Trading Arrangements

During the three months ended March 31, 2024, none of our directors or officers (as defined in Rule 16a-1(f) under the Exchange Act) adopted or terminated contracts, instructions or written plans for the purchase or sale of our securities.

Item 6. Exhibits.

Exhibit Number	Description	Incorporated by Reference			
		Schedule Form	File Number	Exhibit	Filing Date
3.1	Articles of Continuance of Repare Therapeutics Inc.	8-K	001-39335	3.1	June 23, 2020
3.2	Amended and Restated Bylaws of Repare Therapeutics Inc.	8-K	001-39335	3.2	June 23, 2020
10.1*	Fifth Amendment to Collaboration and License Agreement by and between the registrant and Bristol-Myers Squibb Company, dated March 14, 2024.				
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—the instance document does not appear in the Interactive Data File as its XBRL tags are embedded within the Inline XBRL document				
101.SCH*	Inline XBRL Taxonomy Extension Schema With Embedded Linkbase Documents				
104	Inline Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)				

* Filed herewith.

** This certification is being furnished solely to accompany this Quarterly Report on Form 10-Q pursuant to 18 U.S.C. Section 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing of the registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof, regardless of any general incorporation language 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.

REPARE THERAPEUTICS INC.

Date: May 7, 2024

By: /s/ Lloyd M. Segal

Lloyd M. Segal
President and Chief Executive Officer
(Principal Executive Officer)

Date: May 7, 2024

By: /s/ Steve Forte

Steve Forte
Executive Vice President, Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

[***] Certain schedules and exhibits to this exhibit have been omitted pursuant to Item 601(a)(5) of Regulation SK.
A copy of any omitted schedule and/or exhibit will be furnished to the SEC upon request.

FIFTH AMENDMENT TO
COLLABORATION AND LICENSE AGREEMENT

This Fifth Amendment to Collaboration and License Agreement (this “Fifth Amendment”) is entered into as of March 14, 2024 (the “Fifth Amendment Effective Date”) by and between Repare Therapeutics Inc., a Canadian corporation with offices at 7210 Frederick-Banting, Suite 100, St. Laurent, Quebec, Canada H4S 2A1 (“Repare Inc.”) and Repare Therapeutics USA, Inc., a Delaware corporation with offices at 101 Main Street, Suite 1650, Cambridge, Massachusetts 02142 (“Repare USA” and, together with Repare Inc., “Repare”), on the one hand, and Bristol-Myers Squibb Company, a Delaware corporation with offices at 430 E. 29th Street, 14th Floor, New York, New York 10016 (“BMS”), on the other hand. BMS and Repare are each referred to herein by name or as a “Party”, or, collectively, as the “Parties.”

WHEREAS, Repare and BMS entered into that certain Collaboration and License Agreement as of May 26, 2020 (as amended, the “Agreement”);

WHEREAS, in accordance with Section 2.6.3(c) of the Agreement, Repare delivered to BMS on February 2, 2024, the Undruggable Target Data Package for the Undruggable Target identified as [***].

WHEREAS, the Parties wish to amend the Agreement to extend the Option Term for the Unblinded Undruggable Target identified as [***];

NOW, THEREFORE, the Parties, intending to be legally bound, hereby agree as follows:

1. Capitalized terms used in this Fifth Amendment that are not defined herein shall have the meanings ascribed to them in the Agreement.
2. Notwithstanding anything in the Agreement to the contrary the Option Term for the Unblinded Undruggable Target identified as [***] shall hereby expire on [***].
3. This Fifth Amendment shall be deemed incorporated into and made a part of the Agreement. The provisions of this Fifth Amendment shall constitute an amendment to the Agreement, and, to the extent that any term or provision of this Fifth Amendment may be deemed expressly inconsistent with any term or provision in the Agreement, this Fifth Amendment shall govern and control. Except as expressly modified by the terms of this Fifth Amendment, all of the terms, conditions, and provisions of the Agreement are hereby ratified, and the Agreement remains in full force and effect.
4. This Fifth Amendment may be executed in two (2) counterparts, each of which shall be deemed an original, and both of which together shall constitute one and the same instrument. Any such counterpart, to the extent delivered by means of electronic delivery, shall be treated in all manner and respects as an original executed counterpart and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. No Party hereto shall raise the use of electronic delivery to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of electronic delivery as a claim or defense with respect to the formation of a contract, and each Party forever waives any such claim or defense, except to the extent that such claim or defense relates to lack of authenticity.

[Signature Page Follows]

IN WITNESS WHEREOF, and intending to be legally bound hereby, the Parties have caused this Fifth Amendment to Collaboration and License Agreement to be executed by their respective duly authorized officers as of the Fifth Amendment Effective Date.

Bristol-Myers Squibb Company

By: /s/ Maria Engler

Name: Maria Engler

Title: Senior Director, Global Alliance

Repare Therapeutics Inc.

By: /s/ Lloyd M. Segal

Name: Lloyd M. Segal

Title: President and Chief Executive Officer

Repare Therapeutics Inc.

By: /s/ Steve Forte

Name: Steve Forte

Title: Executive Vice President, Chief Financial Officer

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Lloyd M. Segal, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Repare Therapeutics 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 13(a)-15(f) and 15(d)-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 that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 7, 2024

By: /s/ Lloyd M. Segal

Lloyd M. Segal
President and Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Steve Forte, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Repare Therapeutics 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 13(a)-15(f) and 15(d)-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 that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 7, 2024

By: /s/ Steve Forte

Steve Forte

Executive Vice President, Chief Financial Officer
(Principal Financial Officer)

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

In connection with the Quarterly Report on Form 10-Q of Repare Therapeutics Inc. (the "Company") for the period ended March 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Lloyd M. Segal, as President and Chief Executive Officer of the Company, and Steve Forte, as Executive Vice President and Chief Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of his knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 7, 2024

/s/ Lloyd M. Segal

Lloyd M. Segal

President and Chief Executive Officer

(Principal Executive Officer)

Date: May 7, 2024

/s/ Steve Forte

Steve Forte

Executive Vice President, Chief Financial Officer

(Principal Financial Officer and Principal Accounting Officer)

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.
