UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 13, 2025

Repare Therapeutics Inc.

(Exact name of Registrant as Specified in Its Charter)

Quebec	**001-39335**	**Not applicable**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**
7171 Frederick-Banting, Building 2 Suite 270 St-Laurent, Quebec, Canada		**H4S 1Z9**
(Address of Principal Executive Offices)		**(Zip Code)**

Registrant's Telephone Number, Including Area Code: 857 412-7018

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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 is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ☐

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

Item 2.02 Results of Operations and Financial Condition.

On May 13, 2025, Repare Therapeutics Inc. (the "Company") issued a press release announcing its recent business highlights and financial results for the three months ended March 31, 2025. A copy of the press release is furnished hereto as Exhibit 99.1 and is incorporated herein by reference.

The information contained herein and in the accompanying exhibits is not incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filing, except as shall be expressly set forth by specific reference in such filing.

The Company's website and any information contained on the Company's website are not incorporated into this Current Report on Form 8-K

Item 9.01 Financial Statements and Exhibits.

Exhibit No.	Description
99.1	Press Release dated May 13, 2025
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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 hereunto duly authorized.

REPARE THERAPEUTICS INC.

Date: May 13, 2025

By: /s/ Steve Forte
Steve Forte
President, Chief Executive Officer and Chief Financial Officer

Repare Therapeutics Provides Business and Clinical Update and Reports First Quarter 2025 Financial Results

Exploring strategic alternatives to advance clinical stage pipeline and maximize shareholder value

$124.2 million in cash and cash equivalents and marketable securities provides runway as of March 31, 2025

CAMBRIDGE, Mass. & MONTREAL (BUSINESS WIRE)—May 13, 2025 — Repare Therapeutics Inc. ("Repare" or the "Company") (Nasdaq: RPTX), a clinical-stage precision oncology company, today reported financial results for the first quarter ended March 31, 2025.

"During the first quarter of 2025 we continued our efforts to create long-term value for our shareholders via partnering and by advancing our novel pipeline programs," said Steve Forte, President, Chief Executive Officer and Chief Financial Officer of Repare. "We announced a strategic partnership with DCx Biotherapeutics to out-license our discovery platforms, and we are exploring a full range of strategic alternatives and partnerships across our portfolio. We are well-positioned from an operational and financial standpoint to drive our clinical pipeline to key inflection points and remain on track to report initial data for both the LIONS and POLAR trials in the second half of this year."

First Quarter 2025 and Recent Portfolio Highlights:

- **Announced out-licensing of its discovery platforms to DCx Biotherapeutics**
    - Repare announced it out-licensed its early-stage discovery platforms, including certain platform and program intellectual property, to DCx Biotherapeutics Corporation ("DCx"). In connection with this agreement, Repare will receive upfront and near-term payments totaling $4.0 million, as well as a 9.99% equity position in DCx, including certain dilution protection rights, and is eligible to receive potential future out-licensing, clinical and commercial milestone payments, as well as low single-digit sales royalties for the development of certain products by DCx. Additionally, DCx will retain approximately 20 of Repare's preclinical research employees.

- **RP-3467: Potential best-in-class, oral Polθ ATPase/helicase inhibitor**
    - Repare is conducting a Phase 1 clinical trial of RP-3467 (POLAR), dosing patients alone and in combination with the poly-ADP ribose polymerase (PARP) inhibitor, olaparib. POLAR is a multicenter, open-label, dose-escalation Phase 1 clinical trial designed to investigate the safety, pharmacokinetics, pharmacodynamics, and preliminary clinical activity of RP-3647 alone or in combination with olaparib in adults with locally advanced or metastatic epithelial

ovarian cancer, metastatic breast cancer, metastatic castration-resistant prostate cancer, or pancreatic adenocarcinoma.

- *Upcoming expected milestone:*
  - **Q3 2025:** Topline safety, tolerability and early efficacy data from the POLAR trial in monotherapy and in combination with olaparib.

- **RP-1664: First-in-class, oral selective PLK4 Inhibitor**
  - Repare completed enrolment of 29 patients in its Phase 1 LIONS clinical trial evaluating RP-1664 as a monotherapy in adult and adolescent patients with TRIM37-high solid tumors. LIONS is a first-in-human, multicenter, open-label Phase 1 clinical trial designed to investigate safety, pharmacokinetics, pharmacodynamics and the preliminary efficacy of RP-1664.
  - *Upcoming expected milestone:*
    - **Q4 2025:** Initial topline safety, tolerability and early efficacy data from the LIONS trial

- **Lunresertib (RP-6306)**
  - Repare is currently evaluating lunresertib in combination with Debio 0123, a highly selective, brain-penetrant, clinical WEE1 inhibitor, in patients with advanced solid tumors harboring CCNE1 amplification or FBXW7 or PPP2R1A deleterious alterations as part of an ongoing 50/50 cost sharing collaboration with Debiopharm. Repare does not intend to continue to develop lunresertib in any other trials, absent securing a partnership with a development partner.

First Quarter 2025 Financial Results

- **Cash, cash equivalents and marketable securities:** Cash, cash equivalents and marketable securities as of March 31, 2025 were $124.2 million, as compared to $152.8 million as of December 31, 2024. The Company believes that its cash, cash equivalents, and marketable securities are sufficient to fund its current operational plans through 2027.
- **Revenue from collaboration agreements:** Revenue from collaboration agreements was nil and $52.4 million for the three months ended March 31, 2025 and 2024, respectively.
- **Research and development expense, net of tax credits (Net R&D):** Net R&D expenses were$20.3 million and $33.0 million for the three months ended March 31, 2025 and 2024, respectively.
- **General and administrative (G&D) expenses:** G&A expenses were $7.7 million and $8.6 million for the three months ended March 31, 2025 and 2024, respectively.
- **Net (loss) income:** Net loss was $30.0 million, or $0.71 per diluted share, and $13.2 million, or $0.30 per diluted share, for the three months ended March 31, 2025 and 2024, respectively.

About Repare Therapeutics Inc.

Repare Therapeutics is a clinical-stage precision oncology company enabled by its proprietary synthetic lethality approach to the discovery and development of novel therapeutics. Repare Therapeutics has developed highly targeted cancer therapies focused on genomic instability, including DNA damage repair. The Company's clinical-stage pipeline includes RP-3467, a Phase 1 Polθ ATPase inhibitor; RP-1664, a Phase 1 PLK4 inhibitor; and lunresertib, a PKMYT1 inhibitor. For more information, please visit www.reparerx.com and follow @Reparerx on X (formerly Twitter) and LinkedIn.

Forward-Looking Statements

This press release contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 and securities laws in Canada. All statements in this press release other than statements of historical facts are “forward-looking statements. These statements may be identified by words such as “aims,” “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “plans,” “possible,” “potential,” “seeks,” “will” and variations of these words or similar expressions that are intended to identify forward-looking statements, although not all forward-looking statements contain these words. Forward-looking statements in this press release include, but are not limited to, statements regarding: the Company's out-license of its discovery platforms to DCx, including the potential benefits of the transaction and the receipt of out-licensing, clinical and commercial milestone payments and royalties under the out-license agreement; the Company’s plans for exploring strategic alternatives and partnerships across the clinical portfolio, including the Company's plans to seek a partner to fund further clinical development of lunresertib and other assets; the Company's anticipated cash runway; the design, objectives, initiation, timing, progress and results of current and future preclinical studies and clinical trials of the Company’s product candidates including the advancement of its three ongoing clinical trials. These forward-looking statements are based on the Company’s expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties that could cause the Company’s clinical development programs, future results or performance to differ materially from those expressed or implied by the forward-looking statements. Many factors may cause differences between current expectations and actual results, including: the Company's ability to successfully pursue a strategic transaction on attractive terms, or at all; the potential that success in preclinical testing and earlier clinical trials does not ensure that later clinical trials will generate the same results or otherwise provide adequate data to demonstrate the efficacy and safety of a product candidate; the impacts of macroeconomic conditions, including tariffs and other trade policies, the conflict in Ukraine and the conflict in the Middle East, fluctuations in inflation and uncertain credit and financial markets, on the Company’s business, clinical trials and financial position; unexpected safety or efficacy data observed during preclinical studies or clinical trials; clinical trial site activation or enrollment rates that are lower than expected; the Company’s ability to realize the benefits of its collaboration and license agreements; changes in expected or existing competition; changes in the regulatory environment; the uncertainties and timing of the regulatory approval process; and unexpected litigation or other disputes. Other factors that may cause the Company’s actual results to differ from those expressed or implied in the forward-looking statements in this press release are identified in the section titled "Risk Factors" in the Company’s Annual Report on Form 10-K for the year ended December 31, 2024 filed with the Securities and Exchange Commission (“SEC”) and the Québec Autorité des Marchés Financiers ("AMF") on March 3, 2025., and in other filings made with the SEC and AMF from time to time, including the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2025. The Company expressly disclaims any obligation to update any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise, except as otherwise required by law. For more information, please visit reparerx.com and follow Repare on X (formerly Twitter) at @RepareRx and on LinkedIn at https://www.linkedin.com/company/repare-therapeutics/.

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

	As of March 31, 2025	As of December 31, 2024
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 84,455	$ 84,717
Marketable securities	39,773	68,074
Income tax receivable	9,983	10,600
Other current receivables	1,586	1,746
Prepaid expenses	4,546	6,012
Total current assets	140,343	171,149
Property and equipment, net	1,108	2,294
Operating lease right-of-use assets	1,365	1,924
Income tax receivable	1,207	960
Other assets	—	179
TOTAL ASSETS	$ 144,023	$ 176,506
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 2,284	$ 3,623
Accrued expenses and other current liabilities	15,270	19,819
Operating lease liability, current portion	1,372	1,845
Total current liabilities	18,926	25,287
Operating lease liability, net of current portion	—	88
TOTAL LIABILITIES	18,926	25,375
SHAREHOLDERS' EQUITY		
Preferred shares, no par value per share; unlimited shares authorized as of March 31, 2025 and December 31, 2024; 0 shares issued and outstanding as of March 31, 2025, and December 31, 2024	—	—
Common shares, no par value per share; unlimited shares authorized as of March 31, 2025 and December 31, 2024; 42,891,403 and 42,510,708 shares issued and outstanding as of March 31, 2025 and December 31, 2024, respectively	489,836	486,674
Warrants	27	10
Additional paid-in capital	83,066	82,191
Accumulated other comprehensive income	9	54
Accumulated deficit	(447,841)	(417,798)
Total shareholders' equity	125,097	151,131
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 144,023	$ 176,506

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

	Three Months Ended March 31,	
	2025	2024
Revenue:		
Collaboration agreements	$ —	$ 52,404
Operating expenses:		
Research and development, net of tax credits	20,270	32,970
General and administrative	7,652	8,618
Restructuring	3,265	—
Total operating expenses	31,187	41,588
(Loss) income from operations	(31,187)	10,816
Other income (expense), net		
Realized and unrealized (loss) gain on foreign exchange	(2)	31
Interest income	1,538	2,968
Other expense, net	(22)	(24)
Total other income, net	1,514	2,975
(Loss) income before income taxes	(29,673)	13,791
Income tax expense	(370)	(629)
Net (loss) income	$ (30,043)	$ 13,162
Other comprehensive loss:		
Unrealized loss on available-for-sale marketable securities	$ (45)	$ (141)
Total other comprehensive loss	(45)	(141)
Comprehensive (loss) income	$ (30,088)	$ 13,021
Net (loss) income per share attributable to common shareholders:		
Basic	$ (0.71)	$ 0.31
Diluted	$ (0.71)	$ 0.30
Weighted-average common shares outstanding:		
Basic	42,591,730	42,234,001
Diluted	42,591,730	44,024,198

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Source: Repare Therapeutics Inc.