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): August 12, 2021

Repare Therapeutics Inc. (Exact Name of Registrant as Specified in Its Charter)

Québec (State or Other Jurisdiction of Incorporation)

001-39335 (Commission File Number) Not applicable (I.R.S. Employer Identification No.)

7210 Frederick-Banting, Suite 100 St-Laurent, Québec, Canada (Address of Principal Executive Offices)

H4S 2A1 (Zip Code)

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

Not Applicable

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

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	ck the appropriate box below if the Form 8-K filing is into owing provisions:	ended to simultaneously satisfy the fili	ng obligation of the registrant under any of the					
	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))							
Seci	urities registered pursuant to Section 12(b) of the Act:							
	Title of each class	Trading Symbol	Name of each exchange on which registered					
	Common shares, no par value	RPTX	The Nasdaq Stock Market LLC					
	cate by check mark whether the registrant is an emerging oter) or Rule 12b-2 of the Securities Exchange Act of 193	1 1	5 of the Securities Act of 1933 (§230.405 of this					
Eme	erging growth company ⊠							
	n emerging growth company, indicate by check mark if the	9						

Item 2.02 Results of Operations and Financial Condition.

On August 12, 2021, Repare Therapeutics Inc. (the "Company") issued a press release announcing its recent business highlights and financial results for the three and six months ended June 30, 2021. A copy of the press release is furnished hereto as Exhibit 99.1 and is incorporated herein by reference.

The information in this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") or otherwise subject to the liabilities of that section. The information contained herein and in the accompanying exhibit 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.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

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No.	Description				
99.1	Press Release dated August 12, 2021.				
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.

By: /s/ Lloyd M. Segal

Lloyd M. Segal

President and Chief Executive Officer

Dated: August 12, 2021



Repare Therapeutics Provides Business Update and Reports Second Quarter 2021 Financial Results

Announced dosing of first patient in Phase 1b/2 ATTACC trial of ATR inhibitor RP-3500 and PARP inhibitor combinations in patients with molecularly selected cancers

Planning disclosure of initial monotherapy data from the Phase 1/2 TRESR RP-3500 clinical trial early in 4Q21

Announced dosing of first patient in RP-6306 Phase 1 clinical trial

Cambridge, MA & Montreal, QC, August 12, 2021 (BUSINESS WIRE) -- Repare Therapeutics Inc. ("Repare" or the "Company") (Nasdaq: RPTX), a leading clinical-stage precision oncology company enabled by its proprietary synthetic lethality approach to the discovery and development of novel therapeutics, today reported financial results for the second quarter ended June 30, 2021.

"We are pleased to have dosed the first patient in our Phase 1b/2 ATTACC trial of our ATR inhibitor RP-3500 and additional new PARP inhibitor combinations in patients with molecularly selected cancers." said Lloyd M. Segal, President and Chief Executive Officer of Repare. "We also look forward to disclosing initial results from the monotherapy arm of the Phase 1/2 clinical trial of our ATR inhibitor RP-3500 early in the fourth quarter of 2021."

Second Quarter 2021 Review and Operational Updates:

- Announced dosing of first patient in Phase 1b/2 ATTACC clinical trial
 - O In August 2021, the Company dosed the first patient in its Phase 1b/2 ATTACC clinical trial (NCT04972110) of RP-3500, a potent and selective oral small molecule inhibitor of Ataxia-Telangiectasia and Rad3-related protein kinase, or ATR, and PARP inhibitor combinations in patients with molecularly selected cancers.
 - O The primary objectives of the Phase 1b portion of the trial include assessment of safety and tolerability and dose finding to establish a recommended Phase 2 dose ("RP2D") of RP-3500 in combination with ZEJULA (niraparib) or LYNPARZA (olaparib) in up to 48 patients (24 per combination) with advanced solid tumors harboring specific mutations in DNA damage response.
 - The Phase 2 portion of the trial is designed to include a dose expansion at the RP2D with a primary objective to determine the antitumor activity of RP-3500 in combination with niraparib or olaparib.

- Initial results to be presented from the monotherapy arm of the Phase 1/2 TRESR clinical trial evaluating RP-3500 as a monotherapy and in combination with Pfizer's PARP inhibitor, talazoparib, in patients with solid tumors
 - O In July 2020, the Company began dosing in a Phase 1/2 clinical trial of RP-3500.
 - O The Company has activated 12 clinical trial sites across North America and Europe.
 - O The Company plans to disclose initial results from the monotherapy arm early in the fourth quarter of 2021.
- Announced dosing of first patient in RP-6306 Phase 1 clinical trial
 - O In April 2021, the Company dosed the first patient in its Phase 1 clinical trial of RP-6306.
 - O The trial is expected to enroll approximately 60 patients with recurrent tumors characterized by genomic alterations predicted by the Company's SNIPRx® CRISPR-based platform to be sensitive to RP-6306.
 - O The trial objectives include assessment of safety, tolerability, dose, and schedule (including the establishment of a recommended Phase 2 dose).
- Progressed towards first druggable target option exercise in our Bristol Myers Squibb collaboration and license agreement
 - O In July and August 2021, the Company received notification with respect to druggable targets from Bristol Myers Squibb, pursuant to the Bristol Meyers Squib collaboration and license agreement. Based on these notifications, we reclassified \$6.2 million of non-current deferred revenue to current.

Second Quarter 2021 Financial Results:

- Cash and cash equivalents, restricted cash and marketable securities: Cash and cash equivalents, restricted cash and marketable securities as of June 30, 2021 were \$301.0 million.
- **Research and development expenses, net of tax credits (Net R&D):** Net R&D expenses were \$20.2 million and \$36.7 million for the three and six-month periods ended June 30, 2021, respectively, as compared to \$9.0 million and \$17.6 million for the three and six-month periods ended June 30, 2020, respectively. The increase in R&D expenses for the three and nine-month periods were primarily due to increases in development costs related to the Company's RP-3500 and RP-6306 programs, as well as increases in personnel related expenses, including stock-based compensation.
- **General and administrative (G&A) expenses:** G&A expenses were \$6.7 million and \$12.0 million for the three and six-month periods ended June 30, 2021, respectively, as compared to \$3.4 million and \$5.6 million for the three and six-month periods ended June 30, 2020, respectively. The increase in G&A expenses for the three and six-month periods were due to personnel related costs, including stock-based compensation, and D&O insurance which increased as a result of the Company's IPO in June 2020.

• **Net loss:** Net loss was \$26.3 million, or \$0.71 per share and \$47.7 million, or \$1.29 per share, in the three and sixmonth periods ended June 30, 2021, respectively, and \$11.8 million, or \$2.45 per share and \$24.4 million, or \$7.56 per share, in the three and six-month periods ended June 30, 2020, respectively.

About Repare Therapeutics' SNIPRx® Platform

Repare's SNIPRx® platform is a genome-wide CRISPR-based screening approach that utilizes proprietary isogenic cell lines to identify novel and known synthetic lethal gene pairs and the corresponding patients who are most likely to benefit from the Company's therapies based on the genetic profile of their tumors. Repare's platform enables the development of precision therapeutics in patients whose tumors contain one or more genomic alterations identified by SNIPRx® screening, in order to selectively target those tumors in patients most likely to achieve clinical benefit from resulting product candidates.

About Repare Therapeutics, Inc.

Repare Therapeutics is a leading clinical-stage precision oncology company enabled by its proprietary synthetic lethality approach to the discovery and development of novel therapeutics. The Company utilizes its genome-wide, CRISPR-enabled SNIPRx® platform to systematically discover and develop highly targeted cancer therapies focused on genomic instability, including DNA damage repair. The Company's pipeline includes its lead product candidate RP-3500, a potential leading ATR inhibitor currently in Phase 1/2 clinical development, its second clinical candidate, RP-6306, a PKMYT1 inhibitor currently in Phase 1 clinical development, a Pol θ inhibitor program, as well as eight other early-stage, pre-clinical programs. For more information, please visit reparerx.com.

SNIPRx® is a registered trademark of Repare Therapeutics Inc.

Forward-Looking Statement

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. 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 clinical development of the Company's pipeline, the Company's research and development programs, including the anticipated timing, anticipated patient enrollment, trial outcomes or associated costs of its clinical trials of RP-3500 and RP-6306; and the Company's collaboration and license agreement with Bristol Myers Squibb. 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 impacts of the COVID-19 pandemic 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, 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 Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 filed with the Securities and Exchange Commission ('SEC") and the Québec *Autorité des Marchés Financiers* ("AMF") on May 13, 2021, and its other documents subsequently filed with or furnished to the SEC and the AMF. 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.

Repare Therapeutics Inc.

Condensed Consolidated Balance Sheets

(Unaudited) (Amounts in thousands of U.S. dollars, except share data)

	As of June 30,		As of December 31,		
ASSETS		2021		2020	
CURRENT ASSETS:					
Cash and cash equivalents	\$	293.635	\$	326.184	
Marketable securities	Ψ	7,160	Ψ	7,526	
Research and development tax credits receivable		2,667		2,011	
Other receivables		3,597		4,153	
Prepaid expenses		2,129		6,678	
Total current assets		309,188		346,552	
Property and equipment, net		4,235		3,948	
Restricted cash		218		212	
Operating lease right-of-use assets		4,631		4,674	
Other assets		341		288	
Deferred tax assets		2,038		1,412	
TOTAL ASSETS	\$	320,651	\$	357,086	
	Ψ	320,031	Ψ	337,000	
LIABILITIES AND SHAREHOLDERS' EQUITY					
CURRENT LIABILITIES:	\$	3,303	\$	2,251	
Accounts payable	D	10,337	Ф	5,975	
Accrued expenses and other current liabilities		758		697	
Operating lease liability, current portion		8,763		2,073	
Deferred revenue, current portion		62		2,073	
Income tax payable	<u> </u>				
Total current liabilities		23,223		11,014	
Operating lease liability, net of current portion		3,540		3,308	
Deferred revenue, net of current portion TOTAL LIABILITIES		48,799		55,934	
		75,562		70,256	
SHAREHOLDERS' EQUITY					
Preferred shares, no par value per share; unlimited shares authorized					
as of June 30, 2021 and December 31, 2020, respectively; 0 shares issued					
and outstanding as of June 30, 2021, and December 31, 2020, respectively		_		_	
Common shares, no par value per share; unlimited shares authorized as of June 30, 2021 and December 31, 2020; 37,109,506 and 36,902,924 shares					
issued and outstanding as of June 30, 2021 and December 31, 2020, respectively		385,454		384,313	
Additional paid-in capital		10,719		5,875	
Accumulated deficit		(151,084)		(103,358)	
Total shareholders' equity		245,089		286,830	
1 7	\$		¢		
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	<u> </u>	320,651	\$	357,086	

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

	Three Months Ended June 30,				Six Months Ended June 30,			
	2021 2020			2021		2020		
Revenue:								
Collaboration agreements	\$ 279	\$	_	\$	445	\$	_	
Operating expenses:								
Research and development, net of tax credits	20,205		8,951		36,714		17,583	
General and administrative	6,741		3,372		11,978		5,555	
Total operating expenses	 26,946		12,323		48,692		23,138	
Loss from operations	(26,667)		(12,323)		(48,247)		(23,138)	
Other income (expense), net			_		_		_	
Realized and unrealized gain (loss) on foreign exchange	(94)		595		(125)		(1,136)	
Interest income	38		_		102		_	
Other expense	 (7)		(4)		(14)		(6)	
Total other income (expense), net	(63)		591		(37)		(1,142)	
Loss before income taxes	(26,730)		(11,732)		(48,284)		(24,280)	
Income tax recovery (expense)	421		(70)		558		(123)	
Net loss and comprehensive loss	\$ (26,309)	\$	(11,802)	\$	(47,726)	\$	(24,403)	
Net loss attributable to common shareholders—basic								
and diluted	\$ (26,309)	\$	(11,802)	\$	(47,726)	\$	(24,403)	
Net loss per share attributable to common								
shareholders—basic and diluted	\$ (0.71)	\$	(2.45)	\$	(1.29)	\$	(7.56)	
Weighted-average common shares outstanding—basic								
and diluted	37,036,683		4,825,214		36,977,040		3,229,635	

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