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): March 01, 2022

Repare Therapeutics Inc.

(Exact name of Registrant as Specified in Its Charter)

Quebec (State or Other Jurisdiction of Incorporation) 001-39335 (Commission File Number) Not applicable (IRS Employer Identification No.)

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

H4S 2A1 (Zip Code)

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

	(Former Name or Former Address, if Changed Since Last Report)							
	neck the appropriate box below if the Form 8-K filing is intended to simultaneously sat llowing provisions:	tisfy the filing 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 240.1	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	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	e Act (17 CFR 240.13e-4(c))						
	Securities registered pursuant to Section	on 12(b) of the Act:						
	Trading Title of each class 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).								
Em	nerging growth company \square							
	f 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 March 1, 2022, Repare Therapeutics Inc. (the "Company") issued a press release announcing its recent business highlights and financial results for the three and twelve months ended December 31, 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.

Exhibit	
No.	Description
99.1	Press Release dated March 1, 2022
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 thereunto duly authorized.

REPARE THERAPEUTICS INC.

Date: March 1, 2022 By:

/s/ Lloyd M. Segal Lloyd M. Segal President and Chief Executive Officer



Repare Therapeutics Provides Business Update and Reports Fourth Quarter and Full Year 2021 Financial Results

Cambridge, MA & Montreal, QC, March 1, 2022 (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 fourth quarter and full year ended December 31, 2021.

"We achieved several key milestones in 2021 to advance our innovative, synthetic lethality-based pipeline across multiple clinical programs," said Lloyd M. Segal, President and Chief Executive Officer of Repare. "We are particularly pleased with important progress in our RP-3500 program and to have initiated our second clinical program, RP-6306, a first-in-class oral PKMYT1 inhibitor, and look forward to starting IND-enabling studies of our $Pol\theta$ inhibitor program in the first half of 2022 as part of our growing clinical pipeline."

Mr. Segal added: "2022 is expected to be another exciting year for Repare, beginning in the first quarter 2022 with the Phase 2 (Module 2) expansion of the RP-3500 TRESR trial and the initiation of the TRESR Phase 1 monotherapy pediatric module in the first quarter of 2022. We anticipate comprehensive monotherapy TRESR Module 1 clinical data in the second quarter of 2022, and also look forward to initial data from the Phase 1 RP-6306 monotherapy MYTHIC trial in late 2022."

2021 Highlights and 2022 Outlook:

- Announced initial Phase 1 RP-3500 monotherapy data from Phase 1/2 TRESR trial at AACR-NCI-EORTC
 - o Initial Phase 1 results provided clinical proof of concept and validated Repare's SNIPRx platform for molecular selection of tumors for therapy with RP-3500.
 - o Preliminary data showed that monotherapy RP-3500 appears safe and well tolerated, with compelling early efficacy signals across multiple genotypes and tumor types in heavily pretreated patients.
 - o Recommended Phase 2 dose and schedule for further monotherapy RP-3500 evaluation was determined to be 160mg, taken weekly for 3 days on and 4 days off.

Key TRESR Milestones in 2022:

- o Initiated a monotherapy Phase 2 TRESR trial of RP-3500 for the treatment of solid tumors with specific synthetic-lethal genomic alterations including those in the ATM gene (ataxia telangiectasia mutated kinase), in tumors with ATM loss of function and in tumors with other STEP² genomic alteration in February 2022.
- o Initiated recruitment in a Phase 1 pediatric module of TRESR trial of RP-3500 monotherapy and enrollment of a first patient is expected in the first quarter of 2022.

- O Comprehensive monotherapy Phase 1 (Module 1) clinical data from 120 patients enrolled in the Phase 1/2 TRESR trial of RP-3500 is expected in the second quarter of 2022.
- o Determination of recommended Phase 2 dose of RP-3500 in combination with gemcitabine, a trial that began enrolling patients in December 2021, is expected in the second half of 2022.
- o Early clinical data readout for PARPi combination from Phase 1/2 TRESR trial and ATTACC trial of RP-3500 in combination with, collectively, three marketed PARP inhibitors is expected in the third quarter of 2022.

• Advanced RP-6306, a first-in-class, oral PKMYT1 inhibitor both as monotherapy and in combination with gemcitabine and in combination with FOLFIRI

- o In December 2021, the Company began dosing in a Phase 1 clinical trial of RP-6306, a first-in-class small molecule candidate targeting PKMYT1, in combination with gemcitabine for the treatment of molecularly selected advanced solid tumors.
- o In February 2022, the Company initiated recruitment in the Phase 1 MINOTAUR clinical trial of RP-6306 in combination with FOLFIRI for the treatment of molecularly selected advanced solid tumors.
- o Early readout of monotherapy Phase 1 clinical data is expected in late 2022.

Advanced the development of earlier stage discovery programs

The Company is expected to initiate IND-enabling studies of its third synthetic lethal asset, the Pol θ inhibitor program, in the first half of 2022.

Recent Corporate Updates:

- Appointed Philip Herman to Executive Leadership Team as EVP Commercial & New Product Development
 - In January 2022, the Company appointed Philip Herman as EVP Commercial & New Product Development. Mr. Herman was most recently Chief Commercial Officer of Y-mAbs Therapeutics and led the successful launch of DANYELZA® (naxitamab).
- In November 2021, the Company announced the closing of an upsized follow-on public offering yielding aggregate gross proceeds of approximately \$101.2 million, or net proceeds of approximately \$94.3 million, after deducting underwriting commissions and offering expenses of \$0.8 million.

Fourth Quarter and Full Year 2021 Financial Results:

- Cash and cash equivalents and marketable securities: Cash and cash equivalents and marketable securities as of December 31, 2021 were \$341.9 million, including the proceeds from the follow-on public offering in November 2021. Repare believes its current cash and cash equivalents and marketable securities will be sufficient to fund planned operations through 2023.
- **Research and development expenses, net of tax credits (Net R&D):** Net R&D expenses were \$28.0 million and \$90.0 million for the three and twelve month periods ended December 31, 2021, respectively, as compared to \$12.4 million and \$40.1 million for the three and twelve month periods

ended December 31, 2020. The increase in Net R&D expenses for the three and twelve 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 share-based compensation.

- **General and administrative (G&A) expenses:** G&A expenses were \$7.6 million and \$26.2 million for the three and twelve month periods ended December 31, 2021, respectively, as compared to \$4.8 million and \$14.3 million for the three and twelve month periods ended December 31, 2020, respectively. The increase in G&A expenses for the three and twelve month periods were due to personnel related costs, including share-based compensation and, for the twelve month period, the increase was also due to D&O insurance which increased as a result of the Company's IPO in June 2020.
- **Net loss:** Net loss was \$28.3 million, or \$0.70 per share and \$106.9 million, or \$2.83 per share, in the three and twelve month periods ended December 31, 2021, respectively, and \$15.3 million, or \$0.41 per share and \$53.4 million, or \$2.66 per share in the three and twelve month periods ended December 31, 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 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 several 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 discovery of potential product candidates using SNIPRx® platform; and the clinical development of the Company's pipeline and its 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 IND-enabling studies of the Company's Polθ inhibitor program. 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 Annual Report on Form 10-K for the year ended December 31, 2021 filed with the Securities and Exchange Commission ("SEC") and the Ouébec Autorité des Marchés Financiers ("AMF") on March 1, 2022. 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. Consolidated Balance Sheets (Unaudited) (Amounts in thousands of U.S. dollars, except share data)

		As of December 31,		
		2021		2020
ASSETS				
Current assets:				
Cash and cash equivalents	\$	334,427	\$	326,184
Marketable securities		7,439		7,526
Research and development tax credits receivable		2,580		2,011
Other receivables		654		4,153
Prepaid expenses		6,314		6,678
Total current assets		351,414		346,552
Property and equipment, net		5,604		3,948
Restricted cash		_		212
Operating lease right-of-use assets		7,491		4,674
Other assets		586		288
Deferred tax assets		3,620		1,412
TOTAL ASSETS	\$	368,715	\$	357,086
LIABILITIES AND SHAREHOLDERS' EQUITY			_	
Current liabilities:				
Accounts payable	\$	2,302	\$	2,251
Accrued expenses and other current liabilities		18,622		5,975
Operating lease liabilities, current portion		1,721		697
Deferred revenue, current portion		11,921		2,073
Income tax payable		523		18
Total current liabilities		35,089		11,014
Operating lease liabilities, net of current portion		5,592		3,308
Deferred revenue, net of current portion		39,613		55,934
TOTAL LIABILITIES		80,294		70,256
SHAREHOLDERS' EQUITY:				
Preferred shares, no par value per share; unlimited shares authorized as of December 31, 2021 and December 31, 2020, respectively; 0 shares issued and outstanding as of December 31, 2021 and December 31, 2020, respectively		_		_
Common shares, no par value per share; unlimited shares authorized as of December 31, 2021 and December 31, 2020; 41,850,162 and 36,902,924 shares issued and outstanding as of December 31, 2021 and December 31, 2020, respectively		480.699		384,313
Additional paid-in capital		17,988		5,875
Accumulated deficit		(210,266)		(103,358)
TOTAL SHAREHOLDERS' EQUITY		288,421	_	286,830
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$	368,715	\$	357,086
TO THE EXIDERATION OF THE OFFICE OF THE PROPERTY OF THE PROPERTY OF THE OFFICE	Ψ	500,715	Ψ	337,000

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 December 31,			Year Ended December 31,			
		2021		2020		2021		2020
Revenue:		_						
Collaboration agreements	\$	6,877	\$	135	\$	7,600	\$	135
Operating expenses:								
Research and development, net of tax credits		27,972		12,417		90,047		40,091
General and administrative		7,639		4,792		26,213		14,346
Total operating expenses		35,611		17,209		116,260		54,437
Loss from operations		(28,734)		(17,074)		(108,660)		(54,302)
Other (expense) income, net				<u>.</u>				
Realized and unrealized (loss) gain on foreign exchange		(52)		181		(144)		(664)
Interest income		104		84		259		240
Other expense		(20)		(6)		(41)		(16)
Total other income (expense), net		32		259		74		(440)
Loss before income taxes		(28,702)		(16,815)		(108,586)		(54,742)
Income tax benefit		412		1,554		1,678		1,325
Net loss and comprehensive loss	\$	(28,290)	\$	(15,261)	\$	(106,908)	\$	(53,417)
Net loss attributable to common shareholders—basic and diluted	\$	(28,290)	\$	(15,261)	\$	(106,908)	\$	(53,417)
Net loss per share attributable to common shareholders—basic and diluted	\$	(0.70)	\$	(0.41)	\$	(2.83)	\$	(2.66)
Weighted-average common shares outstanding—basic and diluted		40,168,285		36,782,807		37,818,115		20,045,602

Repare Contact:

Steve Forte Chief Financial Officer Repare Therapeutics Inc. info@reparerx.com

Investors:

Kimberly Minarovich Argot Partners repare@argotpartners.com

Media:

David Rosen Argot Partners david.rosen@argotpartners.com 212-600-1902