Repare Therapeutics Provides Business Update and Reports First Quarter 2022 Financial Results

May 5, 2022

Oral presentation of clinical data from the Phase 1/2 TRESR Trial of camonsertib (also known as RP-3500) monotherapy in solid tumors at 2022 AACR Annual Meeting

Results demonstrated robust activity in ovarian cancer with a 75% CBR, 25% ORR and 35 weeks mPFS

Results also show 43% CBR in solid tumors across genotypes and tumor types, potential best-in-class safety and tolerability, and encouraging data in other genotypes beyond ATM

Publication of preclinical data in Nature demonstrated the potential of PKMYT1 inhibitor RP-6306 in tumors with CCNE1 amplification

CAMBRIDGE, Mass. & MONTREAL--(BUSINESS WIRE)--May 5, 2022-- Repare Therapeutics Inc. (“Repare” or the “Company”) (Nasdaq: RPTX), a leading clinical-stage precision oncology company, today reported financial results for the first quarter ended March 31, 2022.

“The first quarter was marked by significant progress in our RP-3500 program, including the comprehensive new dataset from the TRESR trial which was part of the featured oral presentation at the AACR conference this year, and that the United States Adopted Names (USAN) council has adopted 'camonsertib' as the nonproprietary (generic) name in the United States, and the International Nonproprietary Names (INN) council has accepted 'camonsertib' as proposed INN for RP-3500," said Lloyd M. Segal, President and Chief Executive Officer of Repare. “The findings continue to demonstrate camonsertib’s promising clinical benefit given as monotherapy in patients with solid tumors with multiple genotypes and potential best-in-class safety and tolerability profile for ATR inhibitors. Beyond ATM, encouraging data in other genotypes suggest further validation of our STEP^2 platform to identify other synthetic lethalities as we expand TRESR and develop our pipeline of synthetic lethal candidates. We look forward to providing updates on the potential of camonsertib as monotherapy and initial data of camonsertib in combination with PARP inhibitors or gemcitabine expected in the second half of this year.”

First Quarter 2022 Review and Operational Updates:

- **Announced updated clinical data from the ongoing Phase 1/2 TRESR (Treatment Enabled by SNIPRx) clinical trial of camonsertib, a potent and selective oral small molecule inhibitor of ATR (Ataxia-Telangiectasia and Rad3-related protein kinase) for the treatment of solid tumors with specific synthetic-lethal genomic alterations including those in the ATM gene (Ataxia-Telangiectasia mutated kinase) at the 2022 AACR Annual Meeting.**
    - Updated data showed camonsertib monotherapy continues to appear safe and well tolerated. Expectedly, Grade 1-2 anemia was the most common treatment-related adverse event and was well controlled in patients. Only 24.2% of all patients in the 3 days on 4 days off schedule experienced Grade 3 anemia, and none experienced Grade 4 anemia.
    - Camonsertib monotherapy resulted in durable clinical benefit across tumor types and genomic alterations. Overall clinical benefit rate (CBR) for all patients was 43%, and 47% in patients after PARP inhibitor (PARPi) failure.
    - Promising results were observed particularly in patients with advanced ovarian cancer (n = 20). 90% of evaluated patients had prior PARPi failure, and 85% of evaluated patients were platinum resistant. In these patients, overall response (OR) was 25%, including one complete response (CR), three partial responses (PR) as determined by RECIST 1.1 criteria, and one durable and ongoing CA125 response. CBR was 75% and median progression-free survival (mPFS) was 35 weeks.
    - Clinical benefit was also observed in patients with tumors harboring BRCA1 and BRCA2 genomic alterations, as predicted by SNIPRx. In patients with BRCA1/2 mutated tumors (n = 37), ORR was 14% and included two patients with ovarian cancer, and one each with breast cancer, head and neck squamous cell carcinoma, and melanoma. CBR was 43% with a mPFS of 15 weeks in the BRCA1/2 population; in patients specifically with BRCA1 mutations, the CBR was 48%.
    - In patients with ATM loss-of-function (LOF) tumors (n = 34), ORR was 9% including one RECIST 1.1 confirmed/unconfirmed response, and two prostate specific antigen (cPSA) responses. CBR in patients with ATM LOF was 44%, with mPFS of 17 weeks.
    - New sequencing data demonstrated biallelic gene LOF, an emerging biomarker for synthetic lethal therapies, can potentially be leveraged to further enrich for patients most likely to benefit from camonsertib. CBR in patients with biallelic LOF was significantly higher (47%) compared to the CBR in patients with non-biallelic tumors (15%).
    - A poster presentation, titled "Circulating tumor DNA (ctDNA) determinants of improved outcomes in patients (pts) with advanced solid tumors receiving the ataxia telangiectasia and Rad3-related inhibitor (ATRi), RP-3500, in the phase 1/2a TRESR trial (NCT04497116)" (abstract #367586) will be presented at the 2022 ASCO Annual meeting in June.
- **Announced camonsertib dose selection Phase 1 monotherapy safety data from the Phase 1/2 TRESR Trial at the 2022 ESMO Targeted Anticancer Therapies Congress**
    - This comprehensive safety analysis from three monotherapy dosing schedules of camonsertib at therapeutic doses confirmed the acceptable tolerability of the recommended phase 2 dose (160mg 3 days on/4 days off).
    - Anemia was the most common reported toxicity with less than 25% of patients experiencing grade 3 toxicities.

- A dose modification plan that includes 2 alternative dosing schedules was established to mitigate the on-target toxicity of anemia and maintain patients on a camonsertib dosing schedule that targets antitumor activity.
- A nomogram, based on cycle 1 assessment of toxicities, is being prospectively evaluated to identify patients at increased risk of anemia and inform early intervention.

- **Announced publication of preclinical data in *Nature* demonstrating the potential of PKMYT1 inhibitor RP-6306 in tumors with CCNE1 amplification**
  - In April 2022, the Company announced that preclinical data demonstrating inhibition of CCNE1-amplified tumor growth *in vivo* by selective inhibition of PKMYT1 using RP-6306, a first-in-class small molecule candidate targeting PKMYT1, were published in *Nature*.
  - SNIPRx®, the Company's proprietary, genome-wide, CRISPR-based screening approach, was used to uncover CCNE1 amplification as synthetic lethal to PKMYT1 inhibition. Data show PKMYT1 inhibition is a promising therapeutic target in CCNE1-amplified cancers.
  - Phase 1 clinical trials are currently evaluating RP-6306 as a monotherapy (MYTHIC) as well as in combination with gemcitabine (MAGNETIC) for the treatment of molecularly selected advanced solid tumors. The Company recently initiated an additional Phase 1 (MINOTAUR) clinical trial of RP-6306 in combination with FOLFIRI also for the treatment of molecularly selected advanced solid tumors.
- **Initiated patient enrollment in a new arm of its Phase 1 MYTHIC clinical trial designed to evaluate the safety and tolerability of RP-6306 in combination with camonsertib in patients with advanced solid tumors.**
- **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).

First Quarter 2022 Financial Results:

- **Cash and cash equivalents and marketable securities:** Cash and cash equivalents and marketable securities as of March 31, 2022 were $311.7 million.
- **Research and development expenses, net of tax credits (Net R&D):** Net R&D expenses were $26.5 million and $16.5 million for the three months ended March 31, 2022 and 2021, respectively. The year-over-year increase in Net R&D expenses was primarily due to direct external costs related to the Company's camonsertib and RP-6306 programs, and personnel related expenses, including share-based compensation.
- **General and administrative (G&A) expenses:** G&A expenses were $8.8 million and $5.2 million for three months ended March 31, 2022 and 2021, respectively. The year-over-year increase in G&A expenses was primarily due to personnel related costs, including share-based compensation, as we scale the organization, and professional fees related to the Company's transition from emerging growth company and smaller reporting company status at the end of 2021.
- **Net loss:** Net loss was $34.8 million, or $0.83 per share in the three months ended March 31, 2022, and $21.4 million, or $0.58 per share in the three months ended March 31, 2021.

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 camonsertib (also known as 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 Polθ inhibitor program, as well as several 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. 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 and its research and development programs, including the anticipated timing, anticipated patient enrollment or, trial outcomes of its Phase 1/2 TRESR clinical trial of camonsertib (also known as RP-3500). 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 Québec Autorité des Marchés Financiers ("AMF") on March 1, 2022, and its other documents subsequently filed with or furnished to the SEC and AMF, including the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 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 March 31, 2022	**As of December 31, 2021**
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 305,136	$ 334,427
Marketable securities	6,528	7,439
Research and development tax credits receivable	2,986	2,580
Other receivables	663	654
Prepaid expenses	3,915	6,314
Total current assets	319,228	351,414
Property and equipment, net	5,397	5,604
Operating lease right-of-use assets	7,003	7,491
Other assets	586	586
Deferred tax assets	4,935	3,620
TOTAL ASSETS	$ 337,149	$ 368,715
LIABILITIES AND SHAREHOLDERS' EQUITY		

CURRENT LIABILITIES:		
Accounts payable	$ 1,546	$ 2,302
Accrued expenses and other current liabilities	16,936	18,622
Operating lease liability, current portion	1,857	1,721
Deferred revenue, current portion	11,874	11,921
Income tax payable	1,870	523
Total current liabilities	34,083	35,089
Operating lease liability, net of current portion	5,154	5,592
Deferred revenue, net of current portion	39,252	39,613
TOTAL LIABILITIES	78,489	80,294
SHAREHOLDERS' EQUITY		
Preferred shares, no par value per share; unlimited shares authorized as of March 31, 2022 and December 31, 2021, respectively; 0 shares issued and outstanding as of March 31, 2022, and December 31, 2021, respectively	—	—
Common shares, no par value per share; unlimited shares authorized as of March 31, 2022 and December 31, 2021; 41,879,204 and 41,850,162 shares issued and outstanding as of March 31, 2022 and December 31, 2021, respectively	481,048	480,699
Additional paid-in capital	22,635	17,988
Accumulated deficit	(245,023)	(210,266)
Total shareholders' equity	258,660	288,421
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 337,149	$ 368,715

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,	
	2022	**2021**
Revenue:		
Collaboration agreements	$ 408	$ 166

Operating expenses:		
Research and development, net of tax credits	26,458	16,509
General and administrative	8,779	5,237
Total operating expenses	35,237	21,746
Loss from operations	(34,829)	(21,580)
Other income (expense), net		
Realized and unrealized loss on foreign exchange	(17)	(31)
Interest income	129	64
Other expense	(8)	(7)
Total other income (expense), net	104	26
Loss before income taxes	(34,725)	(21,554)
Income tax recovery (expense)	(32)	137
Net loss and comprehensive loss	$ (34,757)	$ (21,417)
Net loss attributable to common shareholders—basic and diluted	$ (34,757)	$ (21,417)
Net loss per share attributable to common shareholders—basic and diluted	$ (0.83)	$ (0.58)
Weighted-average common shares outstanding—basic and diluted	41,861,613	36,916,734

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