Repare Therapeutics Provides Corporate Update and Highlights Anticipated Key 2024 Milestones

January 8, 2024

CAMBRIDGE, Mass. & MONTREAL--(BUSINESS WIRE)--Jan. 8, 2024-- Repare Therapeutics Inc. (“Repare” or the “Company”) (Nasdaq: RPTX), a leading clinical-stage precision oncology company, today provided a corporate update and highlighted key milestones anticipated in 2024.

“We significantly advanced our pipeline in 2023 and presented strong data from key programs, notably for lunresertib in combination with camonsertib, and for camonsertib in combination with PARP inhibitors. In addition, we presented compelling preclinical data sets for RP-3467, which we’re developing as a potential best-in-class Polθ inhibitor, and for RP-1664, a potential first- and best-in-class PLK4 inhibitor,” said Lloyd M. Segal, President and Chief Executive Officer of Repare. “2024 will be a substantial year for Repare as we aim to expand our pipeline to four clinical-stage programs by the second half of 2024, and we expect to share data readouts from ongoing studies of lunresertib combinations.”

Recent Accomplishments:

- Presented initial clinical data from the Phase 1/2 TRESR and ATTACC trials evaluating camonsertib (RP-3500/RG6526, now partnered globally with Roche) in combination with three poly (ADP-ribose) polymerase (PARP) inhibitors in a Clinical Trials Plenary Session at the 2023 American Association for Cancer Research (AACR) Annual Meeting. Camonsertib, a potent and selective oral small molecule inhibitor of ATR (Ataxia-Telangiectasia and Rad3-related protein kinase), showed 48% overall clinical benefit rate 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. Data from the TRESR trial were also published in *Nature Medicine* highlighting the clinical benefit of camonsertib in advanced solid tumors.
- Presented initial positive data from its ongoing Phase 1 MYTHIC trial evaluating lunresertib (RP-6306) alone and in combination with camonsertib in patients with advanced solid tumors harboring *CCNE1* amplification or *FBXW7* or *PPP2R1A* deleterious alterations at the 2023 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics. Initial combination data included an overall RECIST response rate of 50% in patients with heavily pre-treated gynecological tumors at the preliminary recommended Phase 2 dose.
- Disclosed polo-like kinase 4 (PLK4) as the target of its RP-1664 development program and reported comprehensive preclinical data for both RP-1664 and the Company’s Polθ inhibitor, RP-3467, both of which we expect to enter clinical trials in 2024. RP-1664 demonstrated potent and selective inhibition of PLK4 and synthetic lethality in TRIM37-high tumor cells in preclinical studies. RP-3467 demonstrated complete, sustained regressions preclinically in combination with PARP inhibitors, and compelling anti-tumor activity in combination with radioligand therapy (RLT) and chemotherapy.
- Announced a partnership with Debiopharm to explore the potential clinical synergy of Debio 0123, a highly selective clinical WEE1 inhibitor, and lunresertib in a trial expected to start in H1 and for which the companies have developed substantial pre-clinical validation. Repare will sponsor the global study as a new arm in the ongoing MYTHIC study with costs being shared equally by Debiopharm and Repare.
- Enrollment of patients is ongoing in the camonsertib arm of Roche’s TAPISTRY trial (NCT04589845), a Phase 2, global, open-label, multi-cohort study designed to evaluate the safety and efficacy of targeted therapies or immunotherapy in patients with unresectable, locally advanced or metastatic solid tumors determined to harbor specific oncogenic genomic alterations. With multiple patients in advanced stages of screening, dosing of the first patient with camonsertib is expected in the near term, which would result in the achievement of a $40 million milestone payment from Roche to Repare. In October 2023, Roche also dosed the first patient in a camonsertib-based arm in its Phase 1b/2 clinical trial of multiple immunotherapy-based treatment combinations in participants with metastatic non-small cell lung cancer (Morpheus Lung; NCT03337698).
- Announced the appointment of Susan M. Molineaux, Ph.D., to its Board of Directors. Dr. Molineaux currently serves as President and Chief Executive Officer at Para Therapeutics and previously served as Chief Executive Officer of Calithera Biosciences and of Proteolix. Additionally, Repare expanded its senior leadership team with the appointment of Daniel Bélanger as EVP of Human Resources.

Anticipated Key Milestones in 2024:

- Initiation of a Phase 1 dose escalation study of RP-1664, a potential first-in-class, oral PLK4 inhibitor, in adult and adolescent patients with TRIM37-high solid tumors in the first half of 2024.
- Initiation of a Phase 1/1b study of lunresertib and Debio 0123, a WEE1 inhibitor, in the first half of 2024.
- Report initial data from the Phase 1 MINOTAUR study evaluating lunresertib in combination with FOLFIRI for the treatment of advanced solid tumors in the first half of 2024.
- Report data from the dose expansion cohorts of the Phase 1 MYTHIC study evaluating lunresertib in combination with camonsertib in selectively advanced solid tumors in the second half of 2024.
- Repare has closed enrollment in the Phase 1 MAGNETIC study evaluating lunresertib in combination with gemcitabine for

the treatment of advanced solid tumors. The Company expects to report initial data from this study in the second half of 2024.
- Initiation of a Phase 1 dose finding study of RP-3467, a potential best-in-class Polθ inhibitor, in the second half of 2024.

Cash Position and Financial Guidance

Repare ended 2023 with approximately $223 million in cash, cash equivalents and marketable securities, which is anticipated to fund planned operations into mid-2026.

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 lunresertib (also known as RP-6306), a PKMYT1 inhibitor currently in Phase 1/2 clinical development; camonsertib (also known as RP-3500 or RG6526), a potential leading ATR inhibitor currently in Phase 1/2 clinical development and partnered with Roche; RP-1664, a preclinical PLK4 inhibitor; RP-3467, a preclinical Polθ inhibitor program; as well as additional, undisclosed preclinical programs. For more information, please visit www.reparerx.com and follow @Reparerx on X (formerly Twitter) and LinkedIn.

SNIPRx® is a registered trademark of Repare Therapeutics Inc.

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 design, objectives, initiation, timing, progress and results of current and future preclinical studies and clinical trials of the Company's product candidates, including its Phase 1 MYTHIC trial evaluating lunresertib alone and in combination with camonsertib, its MINOTAUR trial evaluating lunresertib in combination with FOLFIRI, its MAGNETIC trial evaluating lunresertib in combination with gemcitabine, its Phase 1/1b trial of Debio 0123 and lunresertib in partnership with Debiopharm, its Phase 1 trial of RP-1664, and its phase 1 trial of RP-3467; the tolerability, efficacy and clinical progress of camonsertib, lunresertib, RP-1664 and RP-3467; the potential of RP-1664 as a first-in-class oral PLK4 inhibitor and RP-3467 as a best-in-class Polθ inhibitor; the potential synergy of Debio 0123 and lunresertib; the Company's anticipated cash runway and financial guidance; the timing and benefits of potential milestone payments under the Roche collaboration agreement; and the benefits and ability to discover further targets and clinical candidates from the Company's discovery platform. 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: 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 the COVID-19 pandemic, the conflict in Ukraine and the conflict between Israel and Hamas, heightened 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; 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, 2022 filed with the Securities and Exchange Commission ("SEC") and the Québec Autorité des Marchés Financiers ("AMF") on February 28, 2023, 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 September 30, 2023 filed with the SEC on November 9, 2023. 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 Twitter at @RepareRx and on LinkedIn at https://www.linkedin.com/company/repare-therapeutics/.

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Repare Contact:
Robin Garner
Vice President and Head of Investor Relations
Repare Therapeutics Inc.
investor@reparerx.com

Investors:
Matthew DeYoung
Argot Partners

repare@argotpartners.com

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

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