Repare Therapeutics Announces Strategic Reprioritization to Focus on Broad Clinical Portfolio

August 28, 2024

Focuses Company's resources on its deep clinical oncology pipeline

Positioned to advance four clinical programs through multiple upcoming milestones

CAMBRIDGE, Mass. & MONTREAL--(BUSINESS WIRE)--Aug. 28, 2024-- Repare Therapeutics Inc. ("Repare" or the "Company") (Nasdaq: RPTX), a leading clinical-stage precision oncology company, today announced the strategic reprioritization of its research and development activities to focus its efforts on the advancement of its portfolio of clinical-stage oncology programs. With multiple upcoming clinical milestones and potential near-term registration-enabling studies, the Company is streamlining its operations to focus on the advancement of its lunresertib, camonsertib, RP-1664 and RP-3467 programs while materially reducing the scale of its preclinical research and discovery activities.

"We acknowledge today the extraordinary contributions and productivity of our discovery team, who have enabled the development of our deep, innovative clinical portfolio. In our mission to rapidly develop new, practice-changing therapies, we will more fully dedicate our resources to our most promising and advanced precision oncology programs to maximize value for patients and for our shareholders," said Lloyd M. Segal, President and Chief Executive Officer of Repare. "We remain on track to report data from our MYTHIC dose expansion trial evaluating lunresertib in combination with camonsertib in patients with ovarian and endometrial cancers in the fourth quarter of 2024, with the potential to begin a registrational trial in 2025."

As part of this strategic refocus, Repare plans to reduce its overall workforce by approximately 25%, with a majority of the headcount reductions from the Company's preclinical group. Repare expects total non-recurring cash payments of approximately $1.5 million to $2.0 million in the third quarter of 2024 associated with the workforce reduction, and expects to generate annual savings of approximately $15.0 million that will extend its cash runway into the second half of 2026, while aggressively pursuing the further development of its clinical portfolio.

"I want to thank all of our impacted Repare colleagues who have contributed to the pioneering research and innovation, some for more than seven years, to significantly advance Repare in its mission to deliver novel medicines for patients in need," continued Segal.

Clinical Programs and Upcoming Milestones:

Lunresertib (RP-6306): First-in-class, oral small molecule inhibitor of PKMYT1

- Repare expects to report data from the ongoing MYTHIC dose expansion clinical trial of lunresertib and camonsertib at the recommended Phase 2 dose (RP2D) in patients with platinum-resistant ovarian and endometrial cancers harboring *CCNE1* amplification or *FBXW7* or *PPP2R1A* mutations in the fourth quarter of 2024, with the potential to begin a registrational trial in 2025.
- Repare is evaluating lunresertib in combination with Debio 0123, a highly selective, brain-penetrant, clinical WEE1 inhibitor, in Module 4 of the ongoing MYTHIC trial in patients with advanced solid tumors harboring *CCNE1* amplification or *FBXW7* or *PPP2R1A* deleterious alterations. Repare expects to report initial data from Module 4 of the MYTHIC trial in 2025.
- Repare also recently reported positive data from the MINOTAUR trial of lunresertib and FOLFIRI showing promising efficacy and duration of therapy in the heavily pretreated population with tumors that harbor *CCNE1* amplification and *FBXW7* mutation alterations that warrant further development.

Camonsertib (RP-3500): Potential best-in-class oral small molecule inhibitor of ATR

- Repare is evaluating camonsertib as a monotherapy in the ongoing non-small cell lung cancer (NSCLC) expansion of the Phase 2 TRESR clinical trial. Camonsertib has demonstrated a promising signal of prolonged progression free survival in patients with ATM-mutated NSCLC in the TRESR trial. Repare expects to report initial data from the TRESR trial in 2025.

RP-1664: First-in-class, highly selective, oral inhibitor of PLK4

- Repare is evaluating RP-1664 as a monotherapy in the Phase 1 LIONS clinical trial in adult and adolescent patients with TRIM37-high solid tumors. After evaluating safety in the LIONS trial, the Company expects to rapidly advance RP-1664 into a Phase 1/2 trial in pediatric patients with high risk, recurrent neuroblastoma, where the patients have a high prevalence of TRIM37-altered tumors.

RP-3467: Potential best-in-class Polθ ATPase inhibitor

- Repare expects to initiate a Phase 1 dose-finding clinical trial of RP-3467 in the fourth quarter of 2024.

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), a potential leading

ATR inhibitor currently in Phase 1/2 clinical development; RP-1664, a Phase 1 PLK4 inhibitor; RP-3467, a preclinical Polθ ATPase inhibitor program; as well as additional, undisclosed preclinical programs. For more information, please visit reparerx.com and follow @Reparerx on X (formerly Twitter) and LinkedIn.

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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 plans for restructuring its workforce and the expected impact of such action, including with respect to anticipated cost savings; 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 its Phase 1 MYTHIC trial evaluating lunresertib alone and in combination with camonsertib, its Phase 1 MINOTAUR trial evaluating lunresertib in combination with FOLFIRI, Module 4 of its Phase 1/1b MYTHIC trial, its Phase 1/1b trial of Debio 0123 and lunresertib in partnership with Debiopharm, its Phase 2 TRESR trial of camonsertib in patients with ATMm, its Phase 1 LIONS trial of RP-1664, its Phase 1 trial of RP-3467; its planned expansion of development of lunresertib plus camonsertib combination; its plans to advance RP-1664 into a Phase 1/2 trial in pediatric patients with high risk, recurrent neuroblastoma; a potential registrational trial in 2025; the tolerability, efficacy and clinical progress of camonsertib, lunresertib, RP-1664 and RP-3467; the potential of RP-3467 as a best-in-class Polθ ATPase inhibitor; and the potential synergies of Debio 0123 in combination with lunresertib, lunresertib in combination with camonsertib and lunresertib in combination with FOLFIRI. 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 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 the conflict in Ukraine and the conflict in the Middle East, 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; 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 Quarterly Report on Form 10-Q for the quarter ended June 30, 2024 filed with the Securities and Exchange Commission (“SEC”) and the Québec Autorité des Marchés Financiers ("AMF") on August 6, 2024. 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/.

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