



Repare Therapeutics Announces a Strategic Partnership Agreement with ONO Pharmaceutical Co., Ltd. for Repare's Polθ Inhibitor Program in Japan and Selected Territories in Asia

January 31, 2019

MONTREAL, Quebec and CAMBRIDGE, Mass, January 31, 2019 — Repare Therapeutics, Inc., a privately held precision oncology company pioneering synthetic lethality to develop novel therapeutics that target specific vulnerabilities of tumors in clearly defined patient populations, announced today that it has entered into an exclusive strategic research, development and commercialization partnership with ONO Pharmaceutical Co., Ltd., for Repare's small molecule Polθ inhibitor program in Japan, South Korea, Taiwan, Hong Kong, Macau and ASEAN countries, excluding mainland China. Repare retains all rights to develop and commercialize the products outside the ONO territory, including the US, Canada and EU.

"We're excited to have ONO as a discovery and development partner," said Lloyd M. Segal, President and CEO of Repare. "This relationship will support our drive to and through the clinic in this important new area of precision oncology therapeutic development."

"ONO identified Repare Therapeutics as the partner of choice for bringing in a potential first-in-class and best-in-class Polθ inhibitor to our portfolio," said Gyo Sagara, President, Representative Director and CEO of ONO. "We are excited to work with Repare for the benefit of cancer patients."

Under the terms of the agreement, ONO will provide an up-front payment and research service payments potentially totaling US \$15M, plus additional cost-sharing through IND. Beyond IND, significant clinical, regulatory and commercial milestones are also included in the agreement, with a potential total of US \$160M. ONO will also pay to Repare high single-digit to low double-digit tiered royalties based on net sales of the product. Repare retains all rights to develop and commercialize the products outside the ONO territory, including the US, Canada and the EU.

Polθ inhibitor opportunity

DNA Polymerase θ (Polθ) is a unique, multifunctional DNA polymerase essential to repairing DNA breaks, especially in homologous recombination deficient (HRD) cells. HRD, including deficiency in the BRCA1 and BRCA2 genes, is a clinically important feature across a variety of important tumor types, including breast, ovarian, prostate and pancreatic cancers. Polθ gene expression is low in normal cells but elevated across a broad range of tumor types, including those with HRD. Currently, HRD tumors may be treated with Poly(ADP-ribose) Polymerase (PARP) inhibitors, which represent a rapidly growing, multi-billion dollar global market. A significant fraction of patients does not initially respond to PARP inhibitor treatment, and the vast majority of treated patients eventually develop PARP inhibitor resistance. A Polθ inhibitor has potential as both a mono-therapy across multiple tumor types and in combination with PARP inhibitors, where its distinct mechanism of action may help address both forms of PARP resistance. Additional clinical populations may also be attractive for combination treatment with a Polθ inhibitor, including possible combinations with chemotherapy, radiotherapy and Immuno-Oncology agents.

About Repare Therapeutics, Inc.

Repare Therapeutics is pioneering synthetic lethality to develop novel therapeutics that target specific vulnerabilities of tumors in clearly defined patient populations. The company's initial focus is on novel targeted therapies in cancer types harboring defective DNA-damage response (DDR)- or genome instability-related functions. Repare's SNIPRx™ platform combines a proprietary, high throughput, CRISPR-enabled gene editing target discovery technology with high-resolution protein crystallography, computational biology, medicinal chemistry and clinical informatics to rapidly generate small molecules for clinical investigation. The company is backed by leading global healthcare investors including Versant Ventures and MPM Capital. For additional information, please visit www.reparerx.com.

About Ono Pharmaceutical Co., Ltd.

Ono Pharmaceutical Co., Ltd., headquartered in Osaka, Japan, is an R&D-oriented pharmaceutical company committed to creating innovative medicines in specific areas. The company focuses primarily on oncology and diabetes as major fields. For more information, please visit the company's website at <http://www.ono.co.jp/eng/index.html>.

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