Rakovina Therapeutics Presents at the 2021 AACR-NCI-EORTC Virtual International Conference on Molecular Targets and Cancer Therapeutics

Presentation highlights pre-clinical data from Rakovina Therapeutics' novel kt-3000 series dual PARP-HDAC inhibitors

VANCOUVER, BC, October 12, 2021 /CNW/ - Rakovina Therapeutics Inc. (TSXV: RKV) ("the Company"), a biopharmaceutical company committed to advancing new cancer therapies based on novel DNA-damage response (DDR) technologies, today announced a summary of the Company's presentation at the 2021 AACR-NCI-EORTC Virtual International Conference on Molecular Targets and Cancer Therapeutics, which was held virtually on October 7-10, 2021.

Rakovina Therapeutics presented a video presentation entitled *In Vitro* Activity of Novel kt-3000 Series Dual PARP-HDAC Inhibitors. The kt-3000 series are novel drug candidates that combine inhibition of poly (ADP-ribose) polymerase (PARP) and histone deacetylase (HDAC) into a single molecule.

"PARP inhibitors are an established treatment against tumor phenotypes harboring deficiencies in homologous DNA repair (HR) and have led to improved clinical outcomes for patients with HR-deficient ovarian, breast and prostate cancers," said Jeffrey Bacha, executive chairman of Rakovina Therapeutics. "Unfortunately, the emergence of clinical resistance to PARP-inhibitor treatment has become an important unmet medical need in the fight against these cancers."

An established mechanism of resistance to PARP inhibitors involves the restoration of BRCA1 or BRCA2 – genes that are important in fighting cancer. Patients with BRCA mutations have a reduced ability to repair DNA damage and therefore are at a higher risk of developing certain types of cancer compared to someone who doesn't have a BRCA mutation. PARP-inhibitors target cancer cells with BRCA mutations by taking advantage of their reduced DNA-repair capacity to selectively kill cancer cells. When a cancer cell is able to restore BRCA function, PARP-inhibitors become less effective.

Laboratory studies demonstrate that HDAC inhibition degrades BRCA1 in cells that have become resistant to PARP inhibitors, which has been shown to re-sensitize resistant cancers to PARP-inhibitor treatment. HDAC inhibition also induces PARP activity, which suggests the potential for treatment synergy in combining an HDAC inhibitor with a PARP inhibitor. While this concept has demonstrated promise in the laboratory, translation to a clinical setting has proved challenging due to overlapping toxicities and differing pharmacokinetics.

Rakovina Therapeutics kt-3000 series combines HDAC and PARP inhibitor in a single molecule, which the Company believes may offer a viable approach to providing this important combination treatment to overcome PARP-inhibitor resistance in patients. Data presented at the conference

demonstrate that select kt-3000 series compounds exhibit strong inhibition of both PARP and HDAC comparable to FDA-approved single-target PARP and HDAC inhibitors.

"We are pleased to report continued progress in the development of the kt-3000 series as a potential next-generation approach in the emerging field of DNA-damage response inhibitors. As a next step, we plan to advance the most promising lead compounds from this series into *in vivo* studies," said Prof. Mads Daugaard, president and chief scientific officer of Rakovina Therapeutics. "We look forward to continuing to report our progress at upcoming scientific meetings."

About Rakovina Therapeutics Inc.

Rakovina Therapeutics Inc. is focused on the development of new cancer treatments based on novel DNA-damage response (DDR) technologies. The Company has established a pipeline of DNA-damage response inhibitors with the goal of advancing one or more drug candidates into human clinical trials and obtaining marketing approval for new cancer therapeutics from Health Canada, the United States Food and Drug Administration and similar international regulatory agencies. Further information may be found at www.rakovinatherapeutics.com.

Additional Information

The TSXV has neither approved nor disapproved the content of this press release. Neither the TSXV nor its Regulation Services Provider (as that term is defined in policies of the TSXV) accepts responsibility for the adequacy or accuracy of this release.

Notice regarding forward-looking statements:

This release includes forward-looking statements regarding the Company and its respective business, which may include, but is not limited to, statements with respect to the proposed business plan of the Company and other statements. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "is expected", "expects", "scheduled", "intends", "contemplates", "anticipates", "believes", "proposes" or variations (including negative variations) of such words and phrases, or state that certain actions, events, or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. Such statements are based on the current expectations of the management of the Company. The forward-looking events and circumstances discussed in this release may not occur by certain specified dates or at all and could differ materially as a result of known and unknown risk factors and uncertainties affecting the Company, including risks regarding the medical device industry, economic factors, regulatory factors, the equity markets generally and risks associated with growth and competition. Although the Company has attempted to identify important factors that could cause actual actions, events, or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events, or results to differ from those anticipated, estimated or intended. No forward-looking statement can be guaranteed. Except as required by applicable securities laws, forward-looking statements speak only as of the date on which they are made and the Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise. The reader is referred to the Company's most recent filings on SEDAR for a more complete discussion of all

applicable risk factors and their potential effects, copies of which may be accessed through the Company's profile page at www.sedar.com.

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