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Rexahn Pharmaceuticals Presents New Preclinical Data on Supinoxin™ at the 2017 San Antonio Breast Cancer Symposium

Supinoxin enhances the efficacy of immunotherapy in multiple preclinical models

Supinoxin shows potent activity against patient-derived triple negative breast cancer (TNBC) tumors in preclinical models

Supinoxin is currently being investigated in a Phase IIa clinical trial in patients with metastatic triple negative breast cancer

ROCKVILLE, Md., Dec. 11, 2017 (GLOBE NEWSWIRE) -- Rexahn Pharmaceuticals, Inc. (NYSE MKT:RNN), a clinical stage biopharmaceutical company developing innovative, targeted therapeutics for the treatment of cancer, today announced that preclinical data on the efficacy of Supinoxin (RX-5902) alone and in combination with immunotherapy were presented at the 40th Annual San Antonio Breast Cancer Symposium.

“Supinoxin was very effective in inhibiting tumor growth in a patient-derived humanized mouse model of TNBC in the absence of dose-limiting adverse events,” said Peter D. Suzdak Ph.D., CEO of Rexahn “The data on the combination with nivolumab (Opdivo) are particularly impressive and demonstrate that a low dose of Supinoxin significantly potentiates the anti-tumor efficacy of the immunotherapy by modulating the activity of the β-catenin/wnt pathway. In this model, immunotherapy alone inhibited tumor growth by 32% whereas the combination with Supinoxin inhibited growth by 85% and the effect on tumor growth persisted even after treatment was stopped. This is exciting and underscores the potential for Supinoxin in combination with other treatments including immunotherapy.”

Preclinical data on Supinoxin were presented on Friday, December 8, 2017 in a poster presentation entitled *Preclinical studies of RX-5902, a beta-catenin modulator in triple negative breast cancer* authored by Drs. JJ Tentler, AC Tan, J Kim, TM Pitts, A Capasso, KL Dailey, G Eckhardt, JR Diamond, University of Colorado School of Medicine and Rexahn Pharmaceuticals. The data presented evaluated the in-vitro efficacy of RX-5902 on 18 different TNBC cell lines and also the in-vivo activity alone and in combination with PD-1 inhibitors and a CTLA4 inhibitor in syngeneic and humanized mouse models of TNBC.

Rexahn is currently conducting a Phase IIa clinical proof-of-concept study to evaluate the safety and efficacy of Supinoxin™ monotherapy in patients with metastatic TNBC who have failed multiple prior chemotherapeutic regimens

About Supinoxin™

Supinoxin™ (RX-5902) is an orally administered, potential first-in-class, small molecule

inhibitor of phosphorylated-p68 (P-p68). P-p68, which is selectively overexpressed in cancer cells and is absent in normal tissue, modulates the activity of the β-catenin/wnt pathway and plays a role in tumor progression and metastasis. In preclinical studies, Supinoxin has been shown to inhibit the growth and proliferation of multiple human cancer cell lines (including triple negative breast cancer) and decrease tumor growth in patient derived xenograft models.

Supinoxin has completed a Phase I dose-escalation clinical trial in cancer patients was shown to be safe and well tolerated at the selected Phase IIa dose (250mg once daily for five days on, two days off for four consecutive weeks in a four week cycle). The most frequently reported drug related adverse events were mild nausea, vomiting and fatigue. Initial signs of clinical activity have been observed in patients with breast (including triple negative), neuroendocrine, paraganglioma, head and neck and colorectal cancers, demonstrating stable disease for up to 1,170 days. Of these patients, approximately 64% had received four or more therapies prior to their enrollment in the Phase I clinical study. In February 2017, Rexahn initiated a Phase IIa clinical proof-of-concept study to evaluate the safety and efficacy of Supinoxin™ monotherapy in patients with metastatic triple negative breast cancer who have failed multiple prior chemotherapeutic regimens.

About Rexahn Pharmaceuticals, Inc.

Rexahn Pharmaceuticals Inc. (NYSE MKT:RNN) is a clinical stage biopharmaceutical company dedicated to developing novel, best-in-class therapeutics for the treatment of cancer. The Company's mission is to improve the lives of cancer patients by developing next generation cancer therapies that are designed to maximize efficacy while minimizing the toxicity and side effects traditionally associated with cancer treatment. Rexahn's product candidates work by targeting and neutralizing specific proteins believed to be involved in the complex biological cascade that leads to cancer cell growth. The Company has a broad oncology pipeline that includes three anti-cancer compounds currently in Phase II clinical development: Supinoxin™, RX-3117, and Archexin®, and a novel nanopolymer-based drug delivery platform technology that may increase the bio-availability of FDA-approved chemotherapies. For more information about the Company and its oncology programs, please visit www.rexahn.com.

Safe Harbor

To the extent any statements made in this press release deal with information that is not historical, these are forward looking statements under the Private Securities Litigation Reform Act of 1995. Such statements include, but are not limited to, statements about Rexahn's plans, objectives, expectations and intentions with respect to cash flow requirements, future operations and products, enrollments in clinical trials, the path of clinical trials and development activities, and other statements identified by words such as "will," "potential," "could," "can," "believe," "intends," "continue," "plans," "expects," "anticipates," "estimates," "may," other words of similar meaning or the use of future dates. Forward-looking statements by their nature address matters that are, to different degrees, uncertain. Uncertainties and risks may cause Rexahn's actual results to be materially different than those expressed in or implied by Rexahn's forward-looking statements. For Rexahn, particular uncertainties and risks include, among others, understandings and beliefs regarding the role of certain biological mechanisms and processes in cancer; drug candidates being in early stages of clinical development; the timing of completion of clinical

trials; the ability to initially develop drug candidates for orphan indications to reduce the time-to-market and take advantage of certain incentives provided by the U.S. Food and Drug Administration; and the ability to transition from our initial focus on developing drug candidates for orphan indications to candidates for more highly prevalent indications. More detailed information on these and additional factors that could affect Rexahn's actual results are described in Rexahn's filings with the Securities and Exchange Commission, including its most recent annual report on Form 10-K and subsequent quarterly reports on Form 10-Q. All forward-looking statements in this news release speak only as of the date of this news release. Rexahn undertakes no obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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