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Rexahn Pharmaceuticals Receives Notice of Allowance for a New U.S. Patent Covering the Use of RX-3117

Patent Protection for RX-3117 Extended until 2036

ROCKVILLE, Md., July 10, 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 the U.S. Patent and Trademark Office has issued a Notice of Allowance for U.S. Patent Application No. 15/178,390, “Fluorocyclopentenylcytosine Methods of Use”. The patent application covers indications, dosage regimens and pharmacokinetic profile for RX-3117. The patent is expected to be issued within a few months from the notice of allowance, and is expected to provide protection to 2036.

Peter D. Suzdak, Ph.D., Chief Executive Officer of Rexahn, stated, “This new patent, once issued, will extend the period of patent protection for RX-3117 and augment the value of RX-3117 to Rexahn and to future potential partners. We are making great progress with the clinical development of RX-3117. The preliminary data from the ongoing Phase IIa trials in pancreatic and advanced bladder cancer with RX-3117 given as monotherapy are very encouraging, and we will shortly commence additional studies in combination with other anticancer agents for patients with earlier stage disease. The value created as we advance RX-3117 through the clinic will be further enhanced with the strengthening and extension of the patent portfolio.”

About RX-3117

RX-3117 is a novel, investigational, oral, small molecule nucleoside compound currently in Phase IIa clinical trials. Once intracellularly activated (phosphorylated) by UCK2, it is incorporated into the DNA or RNA of cells and inhibits both DNA and RNA synthesis, which induces apoptotic cell death of tumor cells. UCK2 is highly overexpressed in various human cancer cells. Preclinical studies have shown that RX-3117 has a broad spectrum anti-tumor activity against over 100 different human cancer cell lines and efficacy in 17 different mouse xenograft models including pancreatic, bladder, lung, cervical and colon cancers, as well as gemcitabine resistant cancer cells. Importantly, RX-3117 still retains its full anti-tumor activity in human cancer cell lines made resistant to the anti-tumor effects of gemcitabine. Rexahn is developing RX-3117 for metastatic pancreatic cancer and for advanced or metastatic bladder cancer.

Rexahn has previously reported the completion of a Phase Ib clinical trial of RX-3117 at the American Society of Clinical Oncology (ASCO) Annual Meeting in June 2016 showing RX-3117 appeared to be safe and well tolerated and exhibited preliminary evidence of single

agent activity after oral administration in cancer patients who had previously failed multiple prior therapies.

Based on these data, Rexahn initiated a two-stage Phase IIa clinical trial of RX-3117 in patients with relapsed or refractory pancreatic cancer to further evaluate the safety and anti-cancer properties of this compound. Preliminary data were presented at the European Society of Medical Oncology (ESMO) Congress in October 2016. Patients enrolled into stage 1 of the clinical trial had actively progressing disease with 55% of them having received 4 or more prior cancer therapies (including 5-FU and gemcitabine-based therapies). These patients would usually be offered palliative or supportive care. There are no approved treatments for pancreatic cancer patients who have failed three or more prior therapies and their survival is usually less than 2 months. In this study more than 20% of patients treated with RX-3117 exhibited progression free survival of greater than 5.6 months (with one patient having progression free survival of 7.2 months). An additional 20%, for a total of 40%, of the patients exhibited progression free survival of 2.5 months. RX-3117 was also shown to be safe and well tolerated in this patient group. Patients in stage 1 of the clinical trial are still being monitored for survival. However, since the predefined efficacy criteria have been achieved, stage 2 of the study has been initiated which entails enrolling an additional 40 metastatic pancreatic cancer patients. An initial data read out from stage 2 of the trial is expected in late 3Q or early 4Q 2017.

Rexahn also initiated a two-stage Phase IIa clinical trial of RX-3117 in patients with advanced or metastatic bladder cancer. Data from the first stage in 10 patients were presented at the American Society for Clinical Oncology (ASCO) annual meeting in June 2017. In stage 1 of the study, two of 10 patients treated with RX-3117 exhibited progression free survival of greater than 6 months and one of these patients is continuing in the study with stable disease at 175 days. Two patients had reductions in tumor size of 19% and 15%, respectively. The predefined efficacy criteria for continuing the study to enroll additional patients was two of ten patients achieving either a progression free survival of at least 4 months or a partial or complete tumor response. These criteria have been met and the study is enrolling an additional 10 patients in this second stage. To date, a total of 12 patients have been enrolled. Fifty-percent (50%), or six, of the patients have stable disease for greater than 56 days and three of the 12 remain in the study with prolonged stable disease, with all patients remaining in the study having stable disease for at least 56 days. RX-3117 was well tolerated exhibiting no dose-limiting toxicities.

Rexahn has received U.S. Food and Drug Administration (FDA) Orphan Drug Designation for RX-3117 for pancreatic cancer.

About Rexahn Pharmaceuticals, Inc.

Rexahn Pharmaceuticals Inc. (NYSE MKT:RNN) is a clinical stage biopharmaceutical company dedicated to developing novel, targeted 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. Pre-clinical studies show that certain of Rexahn's product candidates may be effective against multiple types of cancer, drug resistant cancers, and difficult-to-treat cancers, and others may augment the

effectiveness of current FDA-approved cancer treatments. The Company has a broad oncology pipeline that includes three anti-cancer compounds currently in 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 US PTO actions, patent protection, 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 development, including clinical development; 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; the ability to transition from our initial focus on developing drug candidates for orphan indications to candidates for more highly prevalent indications; the expecting timing of results from our clinical trials; the uncertainties associated with intellectual property protection. 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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