UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (date of earliest event reported): April 16, 2010 (April 13, 2010)

Rexahn Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**001-34079**	**11-3516358**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

15245 Shady Grove Road, Suite 455
Rockville, MD 20850
(Address of principal executive offices) (Zip code)

(240) 268-5300
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 Other Events.

On April 13, 2010, Rexahn Pharmaceuticals, Inc. (the "Company") issued a press release announcing the Phase IIa clinical results of its new investigational drug, Serdaxin®, which the Company is developing for the treatment of major depressive disorder (MDD). On April 14, 2010, the Company issued another press release that provided additional commentary, clarifications and insights on the April 13th announcement reporting the Serdaxin Phase IIa clinical results.

The Company conducted the Serdaxin Phase IIa clinical trial to establish as a proof of concept that Serdaxin can work as an antidepressant drug for patients suffering from MDD. Even though the overall study did not achieve statistical significance, the Phase IIa trial results showed that Serdaxin may improve depression, in particular, those suffering from severe depression. In addition, the results showed that Serdaxin appears to be safe and well tolerated, with no appearance of serious side effects that are commonly linked to currently marketed antidepressant drugs. Based on the results of the Phase IIa clinical trial, the Company currently plans to proceed with a 300 patient Phase IIb clinical trial of Serdaxin in the second half of this year.

The Company also reported that it is currently in discussions with several major pharmaceutical companies with the goal of identifying a potential strategic partner to assist in the development and commercialization of Serdaxin. However, there can be no assurances that these discussions will result in a commercial arrangement.

Copies of both press releases are attached to this Current Report on Form 8-K as Exhibits 99.1 and 99.2 , respectively, and are incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
Exhibit 99.1	Press Release dated April 13, 2010.
Exhibit 99.2	Press Release dated April 14, 2010.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

REXAHN PHARMACEUTICALS, INC.
(Registrant)

By: /s/ TAE HEUM JEONG
Tae Heum Jeong
Vice President of Finance and Chief Financial Officer

Date: April 16, 2010

EXHIBIT INDEX

Exhibit Number	Description
Exhibit 99.1	Press Release dated April 13, 2010.
Exhibit 99.2	Press Release dated April 14, 2010.

rexahn
PHARMACEUTICALS

CONTACTS:

Investor Relations
Stephanie Ascher
Stern Investor Relations, Inc.
212-362-1200
stephanie@sternir.com

Constantine Theodoropulos
Base Pair Communications
617-401-3116
constantine@basepaircomm.com

Rexahn Pharmaceuticals Announces Phase IIa Study Results of Serdaxin in Major Depressive Disorder (MDD)

Statistical Significance Achieved on MADRS Change from Baseline ($p < 0.041$) in Subgroup Analysis of Severe Patients

New York, NY, April 13, 2010 - Rexahn Pharmaceuticals, Inc. (NYSE Amex: RNN), a clinical stage pharmaceutical company developing potential best in class oncology and central nervous system (CNS) therapeutics, today announced clinical results with its investigational new drug, Serdaxin® for the treatment of major depressive disorder (MDD).

The randomized, double blind, placebo controlled and dose ranging clinical trial enrolled 77 patients at multiple sites in the United States. The results of the subgroup analysis are compelling and warrant further study in a larger phase 2 trial.

In the subgroup analysis, the study showed that patients with severe MDD taking 5 mg of Serdaxin had significant improvement in Montgomery-Asberg Depression Rating Scale (MADRS) scores after 8 weeks of treatment, compared to placebo. Among the 77 patients, 53 patients were classified as having severe MDD. Of the 14 patients treated with 5 mg of Serdaxin MADRS scores improved by 55.6%, compared to only 34.0% in the placebo group ($n = 14$), which was statistically significant ($p<0.041$) on an intent to treat basis.

In addition, 64.3% of patients with severe MDD treated with the 5 mg of Serdaxin were considered Responders compared to 28.6% in the placebo group ($p<0.0581$). A Responder is a patient with a change from baseline in MADRS score of greater than or equal to 50% after treatment. Additionally, 42.9% of patients in the treatment group were in remission with a MADRS score of less than or equal to 12 after treatment, at 8 weeks versus 14.3% in the placebo arm ($p<0.209$).

The trial also validates the earlier results which demonstrated Serdaxin to be safe and well tolerated without the appearance of serious side effects that are commonly linked to currently marketed antidepressant drugs, such as selective serotonin uptake inhibitors (SSRI), serotonin-norepinephrine reuptake inhibitors (SNRI), and tricyclic antidepressants (TCA). Even though the overall study did not achieve statistical significance, we believe, based on the statistically significant subgroup results, Rexahn plans to commence a Phase IIb clinical trial in second half this year.

“For the millions of people who are debilitated by depression, the promise of Serdaxin is worthy of further investigation and development. This clinical study demonstrated that Serdaxin is well tolerated, does not yet appear to have some of the side effects typically associated with other anti-depressants and improves patients’ MADRS scores. The notable effect of Serdaxin on patients with severe depression is also very encouraging,” said Robert A. Riesenberg, a nationally recognized psychiatrist and principal investigator for this trial at the Atlanta Center for Medical Research.

“We are pleased with outcome of this Phase IIa clinical trial of Serdaxin. We look forward to further investigating how Serdaxin’s novel action as a dual serotonin and dopamine enhancer may be able to provide greater efficacy, fewer side effects, and potentially reduced relapse of MDD,” said Dr. Chang Ahn, Rexahn’s Chairman and Chief Executive Officer.

Rexahn is currently in discussions with several major pharmaceutical companies with the goal of identifying a potential strategic partner to assist in the development and commercialization of Serdaxin. However, there can be no assurances that these discussions would result in a commercial arrangement.

About Serdaxin®
Serdaxin® is a potential CNS neuroprotective agent and antidepressant. Rexahn is currently investigating Serdaxin as a treatment for depression in Phase II clinical trials. Serdaxin appears to exhibit therapeutic potential and appears to have no serious side effects such as nausea, vomiting, insomnia, weight gain, sexual dysfunction, cognitive deficit or motor impairment that are linked to existing antidepressant drugs. Serdaxin has a well-established, human safety profile. In preclinical studies, Serdaxin had onset of action in less than two days. Based on its novel mechanism as a dual serotonin and dopamine enhancer, it is a potential treatment for multiple CNS disorders where these neurotransmitters are depleted or implicated in CNS-based illnesses, such as Parkinson’s disease (PD). Serdaxin has the potential to address both non-motor and motor events of PD by serving as a neuroprotective agent and addressing loss of dopaminergic neurons that lead to loss of control of movements; and further, enhancing serotonin and dopamine levels that are involved in depression and mood disorders. Rexahn has multiple clinical programs planned for investigating Serdaxin in the treatment of anxiety disorders, depression, Parkinson’s disease, Alzheimer’s disease and neurodegenerative illnesses, and biodefense uses.

About Rexahn Pharmaceuticals, Inc.
Rexahn Pharmaceuticals is a clinical stage pharmaceutical company dedicated to developing best in class therapeutics for cancer, CNS disorders, and sexual dysfunction. Rexahn currently has three drug candidates in Phase II clinical trials, Archexin®, Serdaxin®, and Zoraxel™ - all potential best in class therapeutics - and a pipeline of preclinical compounds for possible treatment of cancers and CNS disorders. Rexahn also operates R&D programs of nano-medicines, 3D-GOLD, and TIMES drug discovery platforms. For more information, please visit www.rexahn.com.

Safe Harbor
This press release contains forward-looking statements, including statements regarding the planned commencement of a Phase IIb trial in the second half of the year and discussions with strategic partners. Rexahn's actual results may differ materially from anticipated results, and expectations expressed in these forward-looking statements, as a result of certain risks and uncertainties, including Rexahn's lack of profitability, and the need for additional capital to operate its business to develop its product candidates; the risk that Rexahn's development efforts relating to its product candidates may not be successful; the possibility of being unable to obtain regulatory approval of Rexahn's product candidates; the risk that the results of clinical trials may not be completed on time or support Rexahn's claims; demand for and market acceptance of Rexahn's drug candidates; Rexahn's reliance on third-party researchers and manufacturers to develop its product candidates; Rexahn's ability to develop and obtain protection of its intellectual property; and other risk factors set forth from time to time in our filings with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2009. Rexahn assumes no obligation to update these forward-looking statements.

CONTACTS:

Investor Relations
Stephanie Ascher
Stern Investor Relations, Inc.
212-362-1200
stephanie@sternir.com

Constantine Theodoropulos
Base Pair Communications
617-401-3116
constantine@basepaircomm.com

Rexahn Pharmaceuticals Issues Additional Comments and Clarifications on its Phase IIa Study Results of Serdaxin in Major Depressive Disorder (MDD)

Rockville, MD, April 14, 2010 - Rexahn Pharmaceuticals, Inc. (NYSE Amex: RNN), a clinical stage pharmaceutical company developing potential best in class oncology and central nervous system (CNS) therapeutics, today offered additional commentary, clarifications and insights on yesterday's announcement of its Phase IIa clinical results of Serdaxin® in the treatment of major depressive disorder (MDD).

"Based on the feedback and reaction from our shareholders, stakeholders and other market participants, it is clear that neither the purpose of the Serdaxin trial or its results were well understood," said Dr. Chang Ahn, Chief Executive Officer of Rexahn.

"The purpose of the Serdaxin Phase IIa trial was to establish as a proof of concept that Serdaxin can work as an antidepressant drug for patients suffering from Major Depressive Disorder. I am happy to say that this is exactly what the study accomplished. The trial results unambiguously reach the conclusion that patients, especially those suffering from severe depression, respond positively to Serdaxin," said Dr. Ahn.

The study showed that patients with severe MDD taking 5 mg of Serdaxin (55.6%) had statistically significant improvement in Montgomery-Asberg Depression Rating Scale (MADRS) scores after 8 weeks of treatment, compared to placebo (34.0%).

Dr. Ahn added, "Some market participants have asked us why our overall trial results were not statistically significant. The answer is simply that the Serdaxin study was never designed to achieve statistical significance as a primary objective, but rather to establish a positive signal among treated patients. This is exactly what the trial succeeded in accomplishing."

"Overall we are extremely pleased with Serdaxin's Phase IIa results, which should be viewed as a success. As such, based on the strength of these results we are now able to move forward with a 300 patient phase IIb clinical trial in the second half of this year. We believe this study will further substantiate Serdaxin as a viable treatment for depression," Dr. Ahn concluded.

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