

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

September 17, 2010

Dr. Chang Ahn Chairman and Chief Executive Officer Rexahn Pharmaceuticals, Inc. 15245 Shady Grove Road, Suite 455 Rockville, MD 20850

Re: Rexahn Pharmaceuticals, Inc. Form 10-K for the year ended December 31, 2009 Schedule 14A filed April 26, 2010 File No. 001-34079

Dear Dr. Ahn:

We have reviewed your filings and have the following comments. In our comments, we ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comment.

After reviewing the information provided, we may have additional comments and/or request that you amend your filing.

Form 10-K for the fiscal year ended December 31, 2009

Intellectual Property, page 18

- 1. Please provide proposed disclosure to be included in your Form 10-K for 2010 which includes the following information with regard to your intellectual property:
 - The number of material patents that you own;
 - The number of material patents that you have licensed;
 - The jurisdictions in which your material patents have been granted; and
 - The indication or product candidate to which each of your material patents relate.

Collaboration and License Arrangements, page 18

2. Please provide proposed disclosure to be included in your Form 10-K for 2010 which includes the material terms of each of your material collaboration and license arrangements. In particular, for your license agreement with Revaax Pharmaceuticals LLC in relation to the licensing and development of certain compounds including

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Serdaxin and Zoraxel, please provide proposed disclosure which includes the following information:

- Initial license fee;
- Range of royalties (within a ten-percent range); and
- Aggregate potential milestone payments;

For your collaborative research agreement with Rexgene Biotech Co., Ltd. in relation to the development of Archexin, please provide proposed disclosure which includes the termination provisions of the agreement.

Research and Development Projects, page 37

3. Please provide us proposed disclosure to be included in future filings of the research and development expenses incurred during each period presented by product.

Signatures, page 52

4. We note that your Form 10-K does not appear to have been signed by an individual identified as your controller or principal accounting officer. If an individual who has already signed your Form 10-K serves in this capacity, please advise us of this fact and confirm that your next Form 10-K will include this additional capacity in the signature block for this individual. If your principal accounting officer or controller has not signed your Form 10-K, your filing will need to be amended to include the signature of this individual as required under General Instruction D to Form 10-K.

<u>Financial Statements</u>
Notes to the Financial Statements
9. Common Stock, page F-15

- 5. It appears, based on your filed exhibits, that the Securities Purchase Agreements and warrant agreements for your December 18, 2007 and March 20, 2008 unit offerings provide for anti-dilution protection whereby additional shares and warrants, at a reduced exercise price, are issued if you issue equity instruments at prices lower than the individual unit offering prices. Please address the following comments:
 - Please explain to us why these anti-dilution make-whole provisions associated with the common stock portion of these unit offerings are not liabilities under ASC Topic 480.
 - Please explain to us why these anti-dilution provisions associated with the common stock warrants were not reclassified to liabilities on January 1, 2009 with the adoption of the new guidance starting at ASC 815-40-15-5. In this regard, it appears that the Subsequent Equity Sales provision in Sections 9d of these warrant agreements is similar to Example 9 at ASC 815-40-55-33 and 55-34.

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- 6. It appears that the warrants issued in conjunction with your May 19, 2009 and October 19, 2009 unit offerings were made pursuant to shelf registration statements. It also appears that the June 30, 2010 unit offering identified in your June 30, 2010 Form 10-Q was also issued pursuant to a shelf registration statement. Please provide us proposed disclosure to include in your future filings to clarify the operation of the anti-dilution protection provisions associated with the warrants in these units. In this regard, please address the following, as applicable, in your proposed disclosure:
 - Clarify how the provisions are structured to protect a holder's position from being diluted based on a mathematical calculation;
 - Describe the inputs and how these inputs are used in the mathematical calculation of the provision;
 - Clarify whether the protection also applies to the common stock issued in the units; and
 - Confirm separately for us that these unit offerings do not have the same provisions as your December 18, 2007 and March 20, 2008 unit whereby additional shares and warrants are issued if you issue equity instruments at prices lower than the individual unit offering prices.

Exhibits 31. Certifications Pursuant to Rule 13a-15(e) or Rule 15d-15(e)

7. Please provide us proposed disclosure to include in your future filings to revise your certifications to be presented exactly as stipulated in Item 601(b)(31) of Regulation S-K. In this regard, please remove the titles of your certifying officers and the name of your company from the introductory sentence. In addition, please change the rule reference for these exhibits in the Exhibit Index. You reference Rules 13a-15(e) and 15d-15(e) when the appropriate Rules are 13a-14(a) and 15d-14(a). The former rules define disclosure controls and procedures, the latter rules set the requirements for filing the certifications.

Schedule Def 14A filed April 26, 2010

Executive Compensation and Other Matters, page 20

Summary Compensation Table, page 20

8. We note that the value of the option award granted to Mr. Soni in 2008 as reflected in the 2009 Summary Compensation Table is the same as the value for the option award as reflected in your 2008 Summary Compensation Table. As such, it appears that the 2009 Summary Compensation Table has not been revised to properly value the option awards granted to named executive officers in accordance with FASB ASC Topic 718. Please advise. If the option awards have not been valued in accordance with FASB ASC Topic 718, your Form 10-K will need to be amended to revise your 2009 Summary Compensation Table accordingly.

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We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact Kei Nakada, Staff Accountant, at (202) 551-3659 or Mark Brunhofer, Senior Staff Accountant, at (202) 551-3638 if you have questions regarding the processing of your response as well as any questions regarding comments on the financial statements and related matters. You may contact Bryan Pitko, Staff Attorney at (202) 551-3203 with questions on any of the other comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg Senior Assistant Chief Accountant