REXAHN PHARMACEUTICALS, INC.
Form 424B5
November 30, 2012
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**Filed Pursuant to Rule 424(b)(5)**
**Registration No. 333-175073**

**Prospectus Supplement**

**(to Prospectus dated July 5, 2011)**

**19,130,435 shares of common stock**

**Warrants to purchase 10,521,739 shares of common stock**

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering 19,130,435 shares of our common stock, par value $0.0001 per share, and common stock purchase warrants, or warrants, to purchase up to 10,521,739 shares of our common stock. The common stock and warrants will be sold in units, with each unit consisting of one share of common stock and a warrant to purchase 0.55 of a share of common stock. The warrants have an exercise price of $0.472 per whole share of common stock. Each unit will be sold to investors in this offering at a negotiated price of $0.33 per unit. The shares of common stock and warrants will be issued separately but can only be purchased together in this offering.

Our common stock is listed on the NYSE MKT under the symbol RNN. We have applied to list the shares being sold in this offering on the NYSE MKT. There can be no assurances that the NYSE MKT will grant the application. On November 28, 2012, the last reported sale price of our common stock on the NYSE MKT was $0.47 per share. The warrants are not and will not be listed on any national securities exchange.

As of November 28, 2012, the aggregate market value of our outstanding common stock held by non-affiliates was approximately $37,185,960, which was calculated based on 78,783,813 shares of outstanding common stock held by non-affiliates and on a price per share of $0.47, the closing price of our common stock on November 28, 2012. With the exception of the securities being offered hereunder, we have not offered any securities pursuant to General Instruction I.B.6. of Form S-3 during the 12 calendar months prior to and including the date of this prospectus supplement.

**Investing in our securities involves a high degree of risk. Please read Risk Factors beginning on page S-5 of this prospectus supplement, page 5 of the accompanying prospectus and the risk factors described in the documents incorporated by reference into this prospectus supplement.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

| | Per Unit | Total |
|---|---|---|

| | | |
|---|---|---|
| Public offering price | $ 0.3300 | $ 6,313,043.55 |
| Underwriting discount (1) | $ 0.0198 | $ 378,782.61 |
| Proceeds, before expenses, to us (2) | $ 0.3102 | $ 5,934,260.94 |

(1) We have agreed to reimburse the representatives of the underwriters for certain of their expenses as described under Underwriting on page S-21 of this prospectus supplement. In addition, we have agreed to issue to the representatives of the underwriters, Maxim Group LLC and Burrill LLC, warrants to purchase our common stock as described under Underwriting on page S-21 of this prospectus supplement.

(2) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the warrants being issued in this offering.

We have granted the underwriters a 45-day option to purchase up to 2,869,565 additional shares of common stock and/or additional warrants to purchase up to 1,578,261 shares of common stock to cover over-allotments, if any. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $56,817.39, and the total proceeds to us, before expenses, will be $890,139.10.

Delivery of the shares and warrants will take place on or about December 4, 2012, subject to the satisfaction of certain conditions.

**Maxim Group LLC** **Burrill LLC**

**The date of this prospectus supplement is November 29, 2012**

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You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering when making your investment decision. You should also read and consider the information in the documents we have referred you to in the section of this prospectus supplement entitled Incorporation of Certain Documents by Reference and Where You Can Find More Information.

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## ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a shelf registration statement on Form S-3 (File No. 333-175073) that we filed with the Securities and Exchange Commission on June 22, 2011 and was declared effective on July 5, 2011.

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part is the accompanying prospectus, which gives more general information about the shares of our common stock and other securities we may offer from time to time under our shelf registration statement, some of which do not apply to the securities offered by this prospectus supplement. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference therein, on the other hand, the information in this prospectus supplement shall control.

Unless the context requires otherwise, in this prospectus supplement and the accompanying prospectus the terms Rexahn, we, us, our and the Company refer to Rexahn Pharmaceuticals, Inc., a Delaware corporation.

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## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of Rexahn and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information referred to under the heading Risk Factors in this prospectus supplement beginning on page S-5. Except as otherwise noted, all information in this prospectus supplement assumes no exercise of the underwriters over-allotment option.*

**Our Company**

We are a development stage biopharmaceutical company focusing on the development of novel cures for cancer to patients worldwide. Our mission is to discover and develop new medicines for diseases that plague patients with no effective cures, in particular high mortality cancers. Our pipeline features one drug candidate in Phase II clinical trials this year, two candidates that may enter Phase I clinical trials next year, and several other drug candidates in pre-clinical development. Our strategy is to continue building a significant product pipeline of innovative medicines that we will commercialize alone or with pharmaceutical partners. In addition, we have two CNS candidates, Serdaxin and Zoraxel, that are in clinical stages and we are exploring options for further development.

We currently have three clinical stage drug candidates for cancer: Archexin®, RX-3117, and RX-5902, and two clinical stage drug candidates for CNS, Serdaxin® and Zoraxel .

***Archexin®***

Archexin is a 20 nucleotide single stranded DNA anti-sense molecule, which is a first-in-class inhibitor of the protein kinase Akt. Akt plays critical roles in cancer cell proliferation, survival, angiogenesis, metastasis, and drug resistance. Archexin received orphan drug designation from the U.S. Food and Drug Administration, or FDA, for five cancer indications (renal cell carcinoma, or RCC, glioblastoma, ovarian cancer, stomach cancer and pancreatic cancer). The FDA orphan drug program provides seven years of marketing exclusivity after approval and tax incentives for clinical research. In August, 2012, we announced top line results of our Phase IIa clinical trial. The open label 2-stage study was designed to assess the safety and efficacy of Archexin in combination with gemcitabine. Stage 1 was the dose finding portion and Stage 2 was the dose expansion portion using the dose identified in Stage 1 to be administered with gemcitabine. The study enrolled 31 subjects aged 18-65 with metastatic pancreatic cancer at nine centers in the United States and India. The primary endpoint was overall survival following four cycles of therapy with a six month follow-up. For those evaluable patients, the study demonstrated that treatment with Archexin in combination with gemcitabine provided a median survival rate of 9.1 months compared to the historical survival data of 5.65 months for standard single agent gemcitabine therapy.

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The most frequent reported adverse events were constipation, nausea, abdominal pain and pyrexia, regardless of relatedness. Rexahn is evaluating options for advancing Archexin, including entering into a Phase IIb trial beginning in the first quarter of 2013. We own one issued U.S. patent for Archexin. The costs incurred for the Phase I clinical trial was approximately $1,500,000. As of September 30, 2012, we have spent approximately $6,420,000 for the development of Archexin. The trial was completed in the third quarter of 2012, and we estimate that we have approximately an additional $120,000 of costs yet to be billed by vendors for this trial.

***RX-3117***

On September 21, 2009, we closed on a securities purchase agreement, or the purchase agreement, with Teva Pharmaceutical Industries Limited, or Teva, for the development of our novel anti-cancer compound, RX-3117. RX-3117 is a small molecule, new chemical entity nucleoside compound that has an anti-metabolite mechanism of action, and has therapeutic potential in a broad range of cancers including colon, lung, and pancreatic cancer. The investment by TEVA is restricted to supporting the research and development program for the development of RX-3117. We will be eligible to receive royalties on net sales of RX-3117 worldwide. This compound entered into an exploratory Phase I clinical study during the first quarter of 2012. The primary objective of the study was to determine oral bioavailability of RX-3117 in humans. On August 6, 2012, we released the results that the study demonstrated the oral bioavailability of RX-3117 in humans when delivered orally to patients, and there were no adverse events reported in the study. We estimate that the costs of the exploratory Phase I clinical study were approximately $550,000.

On November 27, 2012, we agreed with Teva that it will exercise the option to purchase $750,000 of our common stock at 120% of closing market share price on or around December 7, 2012, one day prior to the expected closing date. This will constitute the third and final closing agreed to in the purchase agreement for the purpose of supporting the research and development program for the compound RX-3117. The shares of our common stock to be purchased by Teva pursuant to the purchase agreement will be issued pursuant to the exemption from the registration requirements of the Securities Act of 1933, as amended, or the Securities Act, afforded by Section 4(2) thereof, as a transaction to an accredited investor not involving a public offering. Pursuant to the purchase agreement, we granted Teva certain piggyback registration rights with respect to the shares of our common stock it purchases pursuant to the purchase agreement, which Teva may exercise in the future.

On November 27, 2012, we also entered into a second amendment, or the Second Amendment, to the Research and Exclusive License Option Agreement, dated June 26, 2009, as amended, or the RELO Agreement, with Teva. Pursuant to the terms of the Second Amendment, Teva has agreed (i) to provide us with an additional $926,000 of research funding in our development of RX-3117 and (ii) to conduct additional research and development work for RX-3117 on our behalf pursuant to the terms of a second amendment to the Services Agreement, dated February 4, 2010, as amended. The Second Amendment also gives Teva the right to file the investigational new drug, or the IND, application for RX-3117 with the U.S. Food and Drug Administration, as well as any other regulatory filings required before or associated with the IND filing.

***RX-5902***

RX-5902 is a first-in-class small molecule that inhibits the phosphorylated p68 RNA helicase, a protein that plays a key role in cancer growth, progression, and metastasis. In July, 2012, we submitted an Investigational New Drug Application to the FDA for RX-5902. RX-5902 will likely enter Phase I clinical trials during the first half of 2013. We estimate the costs of the Phase I clinical study to be approximately $1,100,000.

On November 21, 2012, we were issued a United States patent (No. 8,314,100), titled 1-[6,7-substituted alkoxyquinoxalinyl) aminocarbonyl]-4-(hetero) arylpiperazine derivatives , which covers our quinoxalinyl-piperazine compounds, the process for the preparation of such compounds and their pharmaceutical composition. The patent includes RX-5902.

***Serdaxin® (RX-10100)***

Serdaxin is an extended release formulation of clavulanic acid, which is an ingredient present in antibiotics approved by the FDA. We developed Serdaxin for the treatment of depression and neurodegenerative disorders. From January to September, 2011, we conducted a randomized, double-blind, placebo-controlled study compared two doses of Serdaxin, 0.5 mg and 5 mg, to placebo over an 8-week treatment period for major depressive disorder, or MDD, patients. On November 4, 2011, we released results that the study showed Serdaxin did not demonstrate efficacy compared to a placebo group as measured by the Montgomery-Asberg Depression Rating Scale, or MADRS. All groups showed an approximate 14 point improvement in the protocol defined primary endpoint of MADRS, and had a substantial number of patients who demonstrated a meaningful clinical improvement from baseline. The study showed that Serdaxin was safe and well tolerated. At this point, we have not made any determinations of Serdaxin s future paths and have not allocated resources to the further development of Serdaxin for treatment for MDD.

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Through September 30, 2012, the pre-clinical and clinical costs incurred for development of Serdaxin to date have been approximately $9,750,000. We do not anticipate additional costs for the Phase IIb trial. As we are currently evaluating Serdaxin s future paths, we have not allocated additional resources to Serdaxin at this time. We are looking for partners who can fund the further development, license the products or cooperate for commercialization.

***Zoraxel (RX-10100)***

Zoraxel is an immediate release formulation of clavulanic acid, the same active ingredient found in our product candidate Serdaxin. The Phase IIa proof of concept, completed with positive results, was a randomized, double blind, placebo controlled and dose ranging (5 mg, 10 mg, 15 mg) study of 39 erectile dysfunction patients (ages of 18 to 65) treated with Zoraxel. The Phase IIb study is designed to assess Zoraxel s efficacy in approximately 150 male subjects, ages 18 to 70, with ED. The double blind, randomized, placebo-controlled, 12-week study will include IIEF as the primary endpoint following treatment with Zoraxel at 25 and 50 mg doses. However, given the recently reported results of the Serdaxin Phase IIb clinical trial and that Zoraxel and Serdaxin share a common ingredient, we are currently evaluating how to proceed with the Phase IIb study for Zoraxel.

Through September 30, 2012, the costs incurred for development of Zoraxel to date have been approximately $1,245,000. We currently estimate that these Phase IIb studies would require approximately $2,300,000 throughout the remainder of 2012 and 2013, but we have not allocated additional resources to the development of Zoraxel at this time. We are looking for partners who can fund the further development, license the products or cooperate for commercialization.

**Risk Factors**

Our business is subject to substantial risk. Please carefully consider the Risk Factors section and other information in this prospectus supplement and the accompanying prospectus for a discussion of risks. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus supplement and the accompanying prospectus. Additional risks and uncertainties not presently known to us or that we deem currently immaterial may also impair our business operations. You should be able to bear a complete loss of your investment.

**Corporate Information**

Our principal executive offices are located at 15245 Shady Grove Road, Suite 455, Rockville, Maryland 20850 and our telephone number is (240) 268-5300. Our website address is www.rexahn.com. **Information contained on our website is not a part of this prospectus supplement or the accompanying prospectus.**

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**The Offering**

| | |
|---|---|
| Common stock we are offering | 19,130,435 shares.(1) |
| Over-allotment | We have granted to the underwriters an option to purchase up to 2,869,565 additional shares of common stock and/or additional warrants to purchase up to 1,578,261 shares of common stock. The option is exercisable, in whole or in part, for a period of 45 days from the date of this prospectus supplement. |
| Common stock to be outstanding after this offering | 114,476,091 (as more fully described in the notes following this table).(2) |
| Warrants we are offering | We are offering warrants to purchase 10,521,739 shares of common stock. Each warrant has an exercise price of $0.472 per share and is exercisable immediately for a period of five years. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the warrants. There is currently no market for the warrants and none is expected to develop after this offering. |
| Use of proceeds | We intend to use the net proceeds received from the sale of the securities for further development of Archexin and RX-5902 in our lead clinical program and other general corporate purposes. See Use of Proceeds on page S-16. |
| NYSE MKT symbol | RNN |

(1) Does not include 2,869,565 shares of our common stock that may be issued upon exercise of the underwriters over-allotment option.

(2) The number of shares of common stock shown above to be outstanding after this offering is based on 95,345,656 shares outstanding as of November 28, 2012 and excludes:

2,869,565 shares of our common stock and 1,578,261 shares underlying the warrants that may be issued upon the exercise of the underwriters over-allotment option.

7,741,795 shares of our common stock subject to outstanding options having a weighted average exercise price of $1.01 per share;

8,578,000 shares of our common stock reserved for future issuance pursuant to our existing stock option plan;

8,676,142 shares of our common stock that have been reserved for issuance upon exercise of outstanding warrants having a weighted average exercise price of $1.53 per share; and

765,217 shares of our common stock issuable upon the exercise of the warrants being issued to the representatives of the underwriters in connection with this offering.

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## RISK FACTORS

*Investing in our common stock is risky. In addition to the other information in this prospectus, you should consider carefully the following risk factors in evaluating us and our business. If any of the events described in the following risk factors were to occur, our business, financial condition or results of operations likely would suffer. In that event, the trading price of our common stock could decline, and you could lose all or a part of your investment. See also the information contained under the heading Special Note Regarding Forward-Looking Statements immediately below.*

### Risks Related to Our Business

***We currently have no product revenues, have incurred negative cash flows from operations since inception, and will need to raise additional capital to operate our business.***

To date, we have generated no product revenues and have incurred negative cash flow from operations. Until we receive approval from the FDA and other regulatory authorities for our drug candidates, we cannot sell our drugs and will not have product revenues. Therefore, for the foreseeable future, we will have to fund all of our operations and capital expenditures from the net proceeds of equity or debt offerings we may make, cash on hand, licensing fees and grants. Through the end of 2013, we expect to spend approximately $2.6 million on clinical development for Phase II clinical trials of Archexin, $1.5 million on the development of RX-3117, RX-5902 and our preclinical compounds, $4.1 million on general corporate expenses and approximately $200,000 on facilities rent. We will need to raise additional money through debt and/or equity offerings in order to continue to develop our drug candidates. If we are not able to raise sufficient additional money, we will have to reduce our research and development activities. We will first reduce research and development activities associated with our preclinical compounds. To the extent necessary, we will then reduce our research and development activities related to some or all of our clinical drugs.

Additionally, changes may occur that would consume our existing capital at a faster rate than projected, including but not limited to, the progress of our research and development efforts, the cost and timing of regulatory approvals and the costs of protecting our intellectual property rights. We may seek additional financing to implement and fund other drug candidate development, clinical trial and research and development efforts, including Phase I clinical trials for other new drug candidates, as well as other research and development projects.

We will need additional financing to continue to develop our drug candidates, which may not be available on favorable terms, if at all. If we are unable to secure additional financing in the future on acceptable terms, or at all, we may be unable to complete our planned pre-clinical and clinical trials or obtain approval of our drug candidates from the FDA and other regulatory authorities. In addition, we may be forced to reduce or discontinue product development or product licensing, reduce or forego sales and marketing efforts and forego attractive business opportunities in order to improve our liquidity to enable us to continue operations. Any additional sources of financing will likely involve the sale of our equity securities or securities convertible into our equity securities, which may have a dilutive effect on our stockholders.

***We currently anticipate that our cash available will be sufficient to meet our minimum planned operating needs until September 30, 2013. If we are unable to raise additional funds, we may not be able to continue operations far beyond that date.***

As of September 30, 2012, our total cash, including restricted cash and marketable securities was approximately $7.7 million, and we anticipate that our minimum operating needs for the next twelve months are approximately $7.5 million. If we are unable to raise additional funds in the next twelve months, we will not have the cash resources to continue our operations far beyond September 30, 2013.

***We are not currently profitable and may never become profitable.***

We have generated no revenues to date from product sales. Our accumulated deficit as of September 30, 2012 and December 31, 2011 was $63,255,879 and $57,084,613, respectively. For the nine months ended September 30, 2012 and the year ended December 31, 2011, we had net losses of $6,171,266 and $11,344,950, respectively, partially as a result of expenses incurred through a combination of research and development activities related to the various technologies under our control and expenses supporting those activities. Even if we succeed in developing and commercializing one or more of our drug candidates, we expect to incur substantial losses for the foreseeable future and may never become profitable. We also expect to continue to incur significant operating and capital expenditures and anticipate that our expenses will increase substantially in the foreseeable future, based on the following considerations:

- continued pre-clinical development and clinical trials for our current and new drug candidates;

efforts to seek regulatory approvals for our drug candidates;

implementing additional internal systems and infrastructure;

licensing in additional technologies to develop or utilize in development of drug candidates; and

hiring additional personnel.

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***We have a limited operating history.***

We are a development-stage company with a limited number of drug candidates. To date, we have not demonstrated an ability to perform the functions necessary for the successful commercialization of any of our drug candidates. The successful commercialization of our drug candidates will require us to perform a variety of functions, including, but not limited to:

- conducting pre-clinical and clinical trials;
- participating in regulatory approval processes;
- formulating and manufacturing products; and
- conducting sales and marketing activities.

To date, our operations have been limited to organizing and staffing our Company, acquiring, developing and securing our proprietary technology, drug candidate research and development and undertaking, through third parties, pre-clinical trials and clinical trials of our principal drug candidates. These operations provide a limited basis for assessment of our ability to commercialize drug candidates.

***We may not obtain the necessary U.S. or worldwide regulatory approvals to commercialize our drug candidates, and we cannot guarantee how long it will take the FDA or other similar regulatory agencies to review applications for our drug candidates.***

We will need FDA approval to commercialize our drug candidates in the U.S. and approvals from the FDA-equivalent regulatory authorities in foreign jurisdictions to commercialize our drug candidates in those jurisdictions. In order to obtain FDA approval of our drug candidates, we must submit to the FDA a New Drug Application, or NDA, demonstrating that the drug candidate is safe for humans and effective for its intended use. This demonstration requires significant research and animal tests, which are referred to as pre-clinical studies, as well as human tests, which are referred to as clinical trials. Satisfaction of the FDA s regulatory requirements typically takes many years, and depends upon the type, complexity and novelty of the drug candidate and requires substantial resources for research, development and testing. We cannot guarantee that any of our drug candidates will ultimately be approved by the FDA, if the NDA will ultimately be reviewed on an expedited or priority basis by the FDA, or if an expedited or priority review will significantly shorten actual FDA review time. We cannot predict whether our research and clinical approaches will result in drugs that the FDA considers safe for humans and effective for indicated uses. Two of our drug candidates, Archexin and RX-0047, are antisense oligonucleotide, or ASO, compounds. To date, although applications have been made by other companies, the FDA has not approved any NDAs for any ASO compounds for cancer treatment. In addition, each of Archexin, RX-0201-nano and RX-0047-nano is of a drug class (Akt inhibitor, in the case of Archexin and RX-0201-nano, and HIF inhibitor, in the case of RX-0047) that has not been approved by the FDA to date, nor have we submitted such NDA. After the clinical trials are completed, the FDA has substantial discretion in the drug approval process and may require us to conduct additional pre-clinical and clinical testing or to perform post-marketing studies.

In foreign jurisdictions, we must receive approval from the appropriate regulatory authorities before we can commercialize our drugs. Foreign regulatory approval processes generally include all of the risks associated with the FDA approval procedures described above. We cannot assure you that we will receive the approvals necessary to commercialize our drug candidates for sale outside the United States.

***There is no assurance as to the precise scope of our marketing exclusivity afforded under the Orphan Drug Act***

Even if we have orphan drug designation for a particular drug indication, we cannot guarantee that another company also holding orphan drug designation will not receive FDA approval for the same indication before we do. If that were to happen, our applications for that indication may not be approved until the competing company s seven-year period of exclusivity expired. Even if we are the first to obtain FDA approval for an orphan drug indication, there are certain circumstances under which a competing product may be approved for the same indication during our seven-year period of marketing exclusivity, such as if the later product is shown to be clinically superior to the orphan product. Further, the seven-year marketing exclusivity would not prevent other sponsors from obtaining approval of the same compound for other indications or the use of other types of drugs for the same use as the orphan drug.

***Our drug candidates are in various stages of clinical trials.***

Our drug candidates are in various stages of development and require extensive clinical testing, which are very expensive, time-consuming and difficult to design. Archexin, our oncology drug candidate, recently completed Phase IIa trials for pancreatic cancer. RX-3117, another oncology drug candidate, completed an exploratory Phase I clinical trial. On August 6, 2012, we released the results that the study demonstrated the oral bioavailability of RX-3117 in humans when delivered orally to

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patients, and there were no adverse events reported in the study. RX-5902, another drug oncology candidate may enter Phase I clinical trials in 2013. In November, 2011 we released results that the Phase IIb clinical study showed that Serdaxin did not demonstrate efficacy compared to the placebo group as measured by MADRS. We completed our Phase IIa clinical trial for Zoraxel, and are evaluating how to proceed with the Phase IIb study. We are looking for partners who can fund the further development, license the products or cooperate for commercialization.

***Clinical trials are very expensive, time-consuming and difficult to design and implement.***

Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is also time-consuming. We estimate that clinical trials of our current drug candidates will take up to three years to complete. Furthermore, failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon or repeat clinical trials. The commencement and completion of clinical trials may be delayed by several factors, including, but not limited to:

- unforeseen safety issues;
- determination of dosing issues;
- lack of effectiveness during clinical trials;
- change in the standard of care of the indication being studied;
- reliance on third party suppliers for the supply of drug candidate samples;
- slower than expected rates of patient recruitment;
- inability to monitor patients adequately during or after treatment;
- inability or unwillingness of medical investigators and institutional review boards to follow our clinical protocols; and
- lack of sufficient funding to finance the clinical trials.

We or the FDA may suspend clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA finds deficiencies in our IND applications or the conduct of these trials.

Additionally, we may have difficulty enrolling patients in our clinical trials. If we experience such difficulties, we may not be able to complete the clinical trial or we may experience significant delays in completing the clinical trial.

***If the results of our clinical trials fail to support our drug candidate claims, the completion of development of such drug candidate may be significantly delayed or we may be forced to abandon development altogether, which will significantly impair our ability to generate product revenues.***

Even if our clinical trials are completed as planned, we cannot be certain that our results will support our drug candidate claims. Success in pre-clinical testing and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the results of later clinical trials will replicate the results of prior clinical trials and pre-clinical testing. The clinical trial process may fail to demonstrate that our drug candidates are safe for humans and effective for indicated uses. This failure would cause us to abandon a drug candidate and may delay

development of other drug candidates. Any delay in, or termination of, our clinical trials will delay the filing of our NDAs with the FDA and, ultimately, delay our ability to commercialize our drug candidates and generate product revenues. In addition, our trial designs may involve a small patient population. Because of the small sample size, the results of early clinical trials may not be indicative of future results. In addition, standard of care treatments may change which would require additional studies to be done.

In November, 2011, we released the results of our Serdaxin Phase IIb trial, which did not demonstrate Serdaxin s efficacy compared to the placebo measured by the MADRS scores. At this point, we have not made any determinations of Serdaxin s future paths or allocated resources to the further development of Serdaxin. These results may lead us to delay development of Serdaxin.

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***We currently rely on Teva to provide funds for the development of RX-3117. If Teva does not continue to provide funding, we may not be able to continue developing this drug candidate.***

In 2009, we closed on the RELO Agreement, and the related purchase agreement, with Teva providing for the development of our novel anti-cancer compound, RX-3117. Pursuant to the RELO Agreement, Teva has the option to obtain an exclusive, world-wide license from us for the research, development, distribution and commercialization of RX-3117. Pursuant to the terms of the purchase agreement, Teva purchased 3,102,837 shares of our common stock for $3.5 million in 2009, an additional 2,334,515 shares of our common stock for $3.95 million in 2011, and has agreed that it will exercise an option to purchase $750,000 of our common stock at 120% of closing market share price on or around December 7, 2012. Under these agreements, we will be eligible to receive additional development, regulatory and sales milestone payments. In addition, we will be eligible to receive royalties on net sales worldwide. Further on November 27, 2012, Teva agreed (i) to provide us with an additional $926,000 of research funding in our development of RX-3117 and (ii) to conduct additional research and development work for RX-3117 on our behalf. There can be no assurances that Teva will provide additional funding, if needed, to complete the development of RX-3117. If Teva decided to discontinue funding, we may not be able to continue developing RX-3117, and therefore, would not earn any royalties on the product.

***Two of our clinical stage product candidates, Serdaxin and Zoraxel, are based on the same active ingredient, and if safety concerns arise with the active ingredient, then it may delay or prevent further development, regulatory approval or successful commercialization of both product candidates.***

Two of our clinical stage product candidates, Serdaxin and Zoraxel, are based upon the same active ingredient. If safety concerns arise or any other material adverse events occur involving the active ingredient, it may result in delays, prevent the further development or adversely impact our ability to obtain necessary FDA and other regulatory approvals and to successfully commercialize both of these product candidates. Currently we are not allocating any further resources to the development of Serdaxin based on the November 2011 results of our Serdaxin Phase IIb trial, which did not demonstrate Serdaxin s efficacy compared to the placebo measured by the MADRS scores. We have not made any determinations of Serdaxin s and Zoraxel s future paths. We are looking for partners who can fund the further development, license the products or cooperate for commercialization.

***Serdaxin and Zoraxel may be subject to early generic competition or early off-label use of the active ingredient shared by both clinical stage product candidates.***

Two of our clinical stage product candidates, Serdaxin and Zoraxel, are based upon the same active ingredient that has previously been approved by the FDA for use in combination with antibiotics. Because we do not have a patent that claims this active ingredient chemical structure and because we are not likely to be able to obtain new chemical entity market exclusivity for this active ingredient, we may be rapidly subject to early generic competition or early off-label use of the active ingredient, which may adversely impact our ability to successfully commercialize one or both of Serdaxin or Zoraxel and may harm our financial condition, results of operations and business. Currently we are not allocating any further resources to the development of Serdaxin based on the November 2011 results of our Serdaxin Phase IIb trial, which did not demonstrate Serdaxin s efficacy compared to the placebo measured by the MADRS scores. We have not made any determinations of Serdaxin s and Zoraxel s future paths. We are looking for partners who can fund the further development, license the products or cooperate for commercialization.

***If physicians and patients do not accept and use our drugs, our ability to generate revenue from sales of our products will be materially impaired.***

Even if the FDA approves our drug candidates, physicians and patients may not accept or use them. Future acceptance and use of our products will depend upon a number of factors including:

- awareness of the drug s availability and benefits;
- perceptions by members of the health care community, including physicians, about the safety and effectiveness of our drugs;
- pharmacological benefit and cost-effectiveness of our product relative to competing products;

availability of reimbursement for our products from government or other healthcare payers;

effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any; and

the price at which we sell our products.

Because we expect sales of our current drug candidates, if approved, to generate substantially all of our product revenues for the foreseeable future, the failure of any of these drugs to find market acceptance would harm our business and could require us to seek additional financing.

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***Much of our drug development program depends upon third-party researchers, and the results of our clinical trials and such research activities are, to a limited extent, beyond our control.***

We depend upon independent investigators and collaborators, such as universities and medical institutions, to conduct our pre-clinical and clinical trials and toxicology studies. This business practice is typical for the pharmaceutical industry and companies like us. For example, the Phase I clinical trials of Archexin were conducted at the Lombardi Comprehensive Cancer Center of Georgetown Medical Center and the University of Alabama at Birmingham, with the assistance of Amarex, LLC, a pharmaceutical clinical research service provider who is responsible for creating the reports that will be submitted to the FDA. We also relied on TherImmune Research Corporation (now named Bridge Global Pharmaceutical Services, Inc.), a discovery and pre-clinical service provider, to summarize Archexin s pre-clinical data. While we make every effort internally to oversee their work, these collaborators are not our employees and we cannot control the amount or timing of resources that they devote to our programs. These investigators may not assign priority to our programs or pursue them as diligently as we would if we were undertaking such programs ourselves. If outside collaborators fail to devote sufficient time and resources to our drug-development programs, or if their performance is substandard, the approval of our FDA applications, if any, and our introduction of new drugs, if any, may be delayed. The risk of completion or delay of these studies is not within our direct control and a program delay may occur due to circumstances outside our control. A delay in any of these programs may not necessarily have a direct impact on our daily operations. However, to the extent that a delay results in additional cost to us, a higher than expected expense may result. These collaborators may also have relationships with other commercial entities, some of which may compete with us. If our collaborators assist our competitors at our expense, our competitive position would be harmed.

***We rely exclusively on third parties to formulate and manufacture our drug candidates, which expose us to a number of risks that may delay development, regulatory approval and commercialization of our products or result in higher product costs.***

We have no experience in drug formulation or manufacturing. Internally, we lack the resources and expertise to formulate or manufacture our own drug candidates. Therefore, we rely on third party expertise to support us in this area. For example, we have entered into contracts with third-party manufacturers such as UPM Pharmaceuticals, Inc. to manufacture, supply, store and distribute supplies of our drug candidates for our clinical trials. If any of our drug candidates receive FDA approval, we will rely on these or other third-party contractors to manufacture our drugs. Our reliance on third-party manufacturers exposes us to the following potential risks:

We may be unable to identify manufacturers on acceptable terms or at all because the number of potential manufacturers is limited and the FDA must approve any replacement contractor. This approval would require new testing and compliance inspections. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, the production of our products after receipt of FDA approval, if any.

Our third-party manufacturers might be unable to formulate and manufacture our drugs in the volume and of the quality required to meet our clinical needs and commercial needs.

Our contract manufacturers may not perform as agreed or may not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products.

Drug manufacturers are subject to ongoing periodic unannounced inspection by the FDA, the Drug Enforcement Agency (DEA), and corresponding state agencies to ensure strict compliance with good manufacturing practice and other government regulations and corresponding foreign standards. We do not have control over third-party manufacturers compliance with these regulations and standards, but we may be ultimately responsible for any of their failures.

If any third-party manufacturer makes improvements in the manufacturing process for our products, we may not own, or may have to share, the intellectual property rights of formulation patents.

A third party manufacturer may gain knowledge from working with us that could be used to supply one of our competitors with a product that competes with ours.

Each of these risks could delay our clinical trials, drug approval and commercialization and potentially result in higher costs and/or reduced revenues.

***We have no experience selling, marketing or distributing products and currently no internal capability to do so.***

We currently have no sales, marketing or distribution capabilities. While we intend to have a role in the commercialization of our products, we do not anticipate having the resources in the foreseeable future to develop global sales and

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marketing capabilities for all of our proposed products. Our future success depends, in part, on our ability to enter into and maintain collaborative relationships with other companies having sales, marketing and distribution capabilities, the collaborator s strategic interest in the products under development and such collaborator s ability to successfully market and sell any such products. To the extent that we decide not to, or are unable to, enter into collaborative arrangements with respect to the sales and marketing of our proposed products, significant capital expenditures, management resources and time will be required to establish and develop an in-house marketing and sales force with technical expertise. We cannot assure you that we will be able to establish or maintain relationships with third party collaborators or develop in-house sales and distribution capabilities. To the extent that we depend on third parties for marketing and distribution, any revenues we receive will depend upon the efforts of such third parties, as well as the terms of our agreements with such third parties, which cannot be predicted at this early stage of our development. We cannot assure you that such efforts will be successful. In addition, we cannot assure you that we will be able to market and sell our products in the United States or overseas.

***Developments by competitors may render our products or technologies obsolete or non-competitive.***

We will compete against fully integrated pharmaceutical companies and smaller companies that are collaborating with larger pharmaceutical companies, such as Keryx Biopharmaceuticals, Genta Incorporated and Imclone Systems Incorporated, as well as academic institutions, government agencies and other public and private research organizations. In addition, many of these competitors, either alone or together with their collaborative partners, operate larger research and development programs or have substantially greater financial resources than we do, as well as more experience in:

developing drugs;

undertaking pre-clinical testing and human clinical trials;

obtaining FDA and other regulatory approvals of drugs;

formulating and manufacturing drugs; and

launching, marketing and selling drugs.

Large pharmaceutical companies such as Bristol-Myers Squibb, Eli-Lilly, Novartis, Pfizer and Glaxo-SmithKline currently sell both generic and proprietary compounds for the treatment of cancer, depression and erectile dysfunction. In addition, companies pursuing different but related fields represent substantial competition. Many of these organizations have substantially greater capital resources, larger research and development staff and facilities, longer drug development history in obtaining regulatory approvals and greater manufacturing and marketing capabilities than we do. These organizations also compete with us to attract qualified personnel, parties for acquisitions, joint ventures or other collaborations.

***If we fail to adequately protect or enforce our intellectual property rights or secure rights to patents of others, the value of our intellectual property rights would diminish and our business and competitive position would suffer.***

Our success, competitive position and future revenues will depend in part on our ability and the abilities of our licensors and licensees to obtain and maintain patent protection for our products, methods, processes and other technologies, to preserve our trade secrets, to prevent third parties from infringing on our proprietary rights and to operate without infringing the proprietary rights of third parties. We have an active patent protection program that includes filing patent applications on new compounds to treat cancer and other conditions, formulations, delivery systems, and methods of making and using products, and prosecuting these patent applications in the United States and abroad. As patents issue, we also file continuation applications for some of them. Through these actions, we are building a patent portfolio of patents assigned to and licensed to the Company. Further, Rexahn is developing proprietary research and platforms to strengthen and expand our innovative pipelines. However, we cannot predict:

the degree and range of protection any patents in the United States or abroad will afford us against competitors, including whether third parties will find ways to invalidate or otherwise circumvent our licensed patents;

if and when patents will issue in the United States or any other country;

whether or not others will obtain patents claiming aspects similar to those covered by our licensed patents and patent applications;

whether we will need to initiate litigation or administrative proceedings which may be costly and time consuming whether we win or lose;

whether our patents will be challenged by competitors alleging that a patent is invalid or unenforceable and, if opposed or litigated, the outcome of any court action as to patent validity, infringement, enforceability or scope;

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- whether a competitor will develop a similar compound that is outside the scope of protection afforded by a patent or whether the patent scope is inherent in the claims or modified due to interpretation of claim scope by a court;

- whether there were activities previously undertaken by a licensor that could limit the scope, validity or enforceability of licensed patents and intellectual property;

- whether there will be challenges or litigation brought by a licensor alleging breach of a license agreement and its effect on our ability to practice particular technologies and the outcome of any such challenge or litigation; or

- whether a competitor will assert infringement of its patents or intellectual property, whether or not meritorious, and what the outcome of any related litigation or challenge may be.

Our success also depends upon the skills, knowledge and experience of our scientific and technical personnel, our consultants and advisors as well as our licensors and contractors. To help protect our proprietary know-how and our inventions for which patents may be unobtainable or difficult to obtain, we rely on trade secret protection and confidentiality agreements. To this end, we require all employees to enter into agreements that prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business. These agreements may not provide adequate protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of such information. If any of our trade secrets, know-how or other proprietary information is disclosed, the value of our trade secrets, know-how and other proprietary rights would be significantly impaired and our business and competitive position would suffer.

***If we infringe the rights of third parties we could be prevented from selling products and be forced to pay damages and defend against litigation.***

If our products, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and may have to:

- obtain licenses, which may not be available on commercially reasonable terms, if at all;

- redesign our products or processes to avoid infringement;

- stop using the subject matter claimed in the patents held by others, which could cause us to lose the use of one or more of our drug candidates;

- pay damages; or

- defend litigation or administrative proceedings which may be costly and time consuming whether we win or lose, and which could result in a substantial diversion of our management and personnel resources.

Although to date, we have not received any claims of infringement by any third parties, as our drug candidates move into clinical trials and commercialization, our public profile and that of our drug candidates may be raised and generate such claims.

***Our license agreement with Revaax may be terminated in the event we commit a material breach, the result of which would significantly harm our business prospects.***

Our license agreement with Revaax is subject to termination by Revaax if we materially breach our obligations under the agreement, including breaches with respect to certain installment payments and royalty payments, if such breaches are not cured within a 60-day period. The

agreement also provides that it may be terminated if we become involved in a bankruptcy, insolvency or similar proceeding. If this license agreement is terminated, we will lose all of our rights to develop and commercialize the licensed compounds, including Serdaxin and Zoraxel, which would significantly harm our business and future prospects.

***If we are unable to successfully manage our growth, our business may be harmed.***

In addition to our own internally developed drug candidates, we proactively seek opportunities to license-in the compounds in oncology and other therapeutic areas that are strategic and have value creating potential to take advantage of our development know-how. We are actively pursuing additional drug candidates to acquire for development. Such additional drug candidates could significantly increase our capital requirements and place further strain on the time of our existing personnel, which may delay or otherwise adversely affect the development of our existing drug candidates. Alternatively, we may be

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required to hire more employees, further increasing the size of our organization and related expenses. If we are unable to manage our growth effectively, we may not efficiently use our resources, which may delay the development of our drug candidates and negatively impact our business, results of operations and financial condition.

***We may not be able to attract and retain qualified personnel necessary for the development and commercialization of our drug candidates. Our success may be negatively impacted if key personnel leave.***

Attracting and retaining qualified personnel will be critical to our future success. We compete for qualified individuals with numerous biopharmaceutical companies, universities and other research institutions. Competition for such individuals is intense, and we cannot assure you that we will be successful.

The loss of the technical knowledge and management and industry expertise of any of our key personnel, especially Dr. Chang H. Ahn, our Chairman, Chief Executive Officer, Chief Science Officer and regulatory expert, could result in delays in product development and diversion of management resources, which could adversely affect our operating results. Dr. Ahn plans to step down as Chief Executive Officer, but will remain with the Company as our Chief Science Officer. We do not have key person life insurance policies for any of our officers.

***We may incur substantial liabilities and may be required to limit commercialization of our products in response to product liability lawsuits.***

The testing and marketing of medical products entail an inherent risk of product liability. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our products. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of pharmaceutical products we develop, alone or with collaborators. Although we currently carry clinical trial insurance and product liability insurance we, or any collaborators, may not be able to maintain such insurance at a reasonable cost. Even if our agreements with any future collaborators entitles us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

**Risks Related to Our Stock**

***The market price of our common stock may fluctuate significantly.***

The market price of our common stock may fluctuate significantly in response to factors, some of which are beyond our control, such as:

- the announcement of new products or product enhancements by us or our competitors;
- changes in our relationships with licensors or other strategic partners;
- developments concerning intellectual property rights and regulatory approvals;
- variations in our and our competitors results of operations;
- changes in earnings estimates or recommendations by securities analysts; and
- developments in the pharmaceutical or biotechnology industries.

Further, the stock market, in general, and the market for biotechnology companies, in particular, have experienced extreme price and volume fluctuations. Continued market fluctuations could result in extreme volatility in the price of our common stock, which could cause a decline in the value of our common stock. You should also be aware that price volatility might be worse if the trading volume of our common stock is low. We have not paid, and do not expect to pay, any cash dividends because we anticipate that any earnings generated from future operations

will be used to finance our operations and as a result, you will not realize any income from an investment in our common stock until and unless you sell your shares at a profit.

Some or all of the restricted shares of our common stock issued in the merger of Corporate Road Show.Com Inc. and Rexahn, Corp or held by other stockholders may be offered from time to time in the open market pursuant to Rule 144, and these sales may have a depressive effect on the market for our common stock. In general, an affiliated person who has held restricted shares for a period of six months may, upon filing with the SEC a notification on Form 144, sell into the market common stock in an amount equal to 1 percent of the outstanding shares (approximately 950,000 shares) during a three-month period. Non-affiliates may sell restricted securities after six months without any limits on volume.

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***An investment in shares of our common stock is very speculative and involves a very high degree of risk.***

To date, we have generated no revenues from product sales and only minimal revenues from a research agreement with a minority shareholder, and interest on bank account balances and short-term investments. Our accumulated deficit as of September 30, 2012 and December 31, 2011 was $63,255,879 and $57,084,613, respectively. For the nine months ended September 30, 2012 and the year ended December 31, 2011, we had net losses of $6,171,266 and $11,344,950, respectively, partially as a result of expenses incurred through a combination of research and development activities related to the various technologies under our control and expenses supporting those activities. Until we receive approval from the FDA and other regulatory authorities for our drug candidates, we cannot sell our drugs and will not have product revenues.

***Trading volume in our common stock is limited and its price is volatile.***

Our common stock is traded on the NYSE MKT under the trading symbol RNN. Currently there is an existing but limited public trading market for our common stock. Our common stock has experienced, and is likely to experience in the future, significant price and volume fluctuation. Among the factors that could cause the market price of our common stock to fluctuate significantly are the following:

- the announcement of new products or product enhancements by us or our competitors;
- changes in our relationships with our licensors and other strategic partners;
- developments concerning intellectual property rights and regulatory approvals;
- variations in our and our competitors results of operations;
- changes in earnings estimates or recommendations by securities analysts; and
- developments in the biotechnology industry.

Further, the stock market, in general, and the market for biotechnology companies, in particular, have experienced extreme price and volume fluctuations. Continued market fluctuations could result in extreme volatility in the price of our common stock, which could cause a decline in the value of our common stock. You should also be aware that price volatility might be worse if the trading volume of our common stock is low.

***We may require additional capital funding the receipt of which may impair the value of our common stock.***

If we expand more rapidly than currently anticipated or if our working capital needs exceed our current expectations, we may need to raise additional capital through public or private equity offerings or debt financings. Our future capital requirements depend on many factors including our research, development, sales and marketing activities. We do not know whether additional financing will be available when needed, or will be available on terms favorable to us. If we cannot raise needed funds on acceptable terms, we may not be able to develop or enhance our products, take advantage of future opportunities or respond to competitive pressures or unanticipated requirements. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution and the new equity securities may have greater rights, preferences or privileges than our existing common stock.

***We have not paid dividends to our stockholders in the past, and we do not anticipate paying dividends to our stockholders in the foreseeable future.***

We have not declared or paid cash dividends on our common stock. We currently intend to retain all future earnings, if any, to fund the operation of our business, and therefore we do not anticipate paying dividends on our common stock in the foreseeable future.

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***Our common stock is currently listed on the NYSE MKT under the trading symbol, RNN. However, because our common stock may be a penny stock, it may be more difficult for you to sell shares of our common stock, and the market price of our common stock may be adversely affected.***

Our common stock may be a penny stock if, among other things, the stock price is below $5.00 per share, we are not listed on a national securities exchange or approved for quotation on the Nasdaq Stock Market, or we have not met certain net tangible asset or average revenue requirements. Broker-dealers who sell penny stocks must provide purchasers of these stocks with a standardized risk-disclosure document prepared by the SEC. This document provides information about penny stocks and the nature and level of risks involved in investing in the penny-stock market. A broker must also give a purchaser, orally or in writing, bid and offer quotations and information regarding broker and salesperson compensation, make a written determination that transactions in penny stock are suitable for the purchaser, and obtain the purchaser s written agreement to the purchase. Broker-dealers must also provide customers that hold penny stock in their accounts with such broker-dealer a periodic statement containing price and market information relating to the penny stock. If a penny stock is sold in violation of the penny stock rules, purchasers may be able to cancel their purchase and get their money back. If applicable, the penny stock rules may make it difficult for investors to sell their shares of our stock. Because of the rules and restrictions applicable to a penny stock, there is less trading in penny stocks and the market price of our common stock may be adversely affected. Also, many brokers choose not to participate in penny stock transactions. Accordingly, purchasers may not always be able to resell shares of our common stock publicly at times and prices that they feel are appropriate.

***We are currently not in compliance with NYSE MKT rules regarding the minimum stockholders equity requirement and are at risk of being delisted from the NYSE MKT, which may subject us to the SEC s penny stock rules and decrease the liquidity of our common stock.***

Because of our historical losses from operations, NYSE MKT rules require that we maintain minimum stockholders equity of $6 million, unless our market capitalization exceeds $50 million. If we do not achieve or maintain compliance with NYSE MKT listing rules, the NYSE MKT could take action to delist our stock from the NYSE MKT at any time. Following any such delisting, our common stock may be traded over-the-counter on the OTC Bulletin Board or in the pink sheets. These alternative markets, however, are generally considered to be less efficient than, and not as broad as, the NYSE MKT. If our common stock is delisted from NYSE MKT, there may be a limited market for our stock, trading in our stock may become more difficult and our share price could decrease. Specifically, you may not be able to resell your shares of common stock at or above the price you paid for such shares or at all.

In addition, if our common stock is delisted, our ability to raise additional capital may be impaired because of the less liquid nature of the OTC Bulletin Board and the pink sheets. While we cannot guarantee that we would be able to complete an equity financing on acceptable terms, or at all, we believe that dilution from any equity financing while our shares are quoted on the OTC Bulletin Board or the pink sheets would likely be substantially greater than if we were to complete a financing while our common stock is traded on the NYSE MKT.

In the event our common stock is delisted, it may also become subject to penny stock rules. The SEC generally defines penny stock as an equity security that has a market price of less than $5.00 per share, subject to certain exceptions. We are not currently subject to the penny stock rules because our common stock qualifies for an exception to the SEC s penny stock rules for companies that have an equity security that is quoted on an exchange. However, if we were delisted, our common stock would become subject to the penny stock rules, which impose additional sales practice requirements on broker-dealers who sell our common stock. If our common stock were considered penny stock, the ability of broker-dealers to sell our common stock and the ability of our stockholders to sell their shares in the secondary market would be limited and, as a result, the market liquidity for our common stock would likely be adversely affected. We cannot assure you that trading in our securities will not be subject to these or other regulations in the future.

**Risks Related to This Offering**

***Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.***

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business and cause the price of our common stock to decline.

***You will experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.***

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on the public offering price of $0.33 per unit, if you purchase units in this offering, you will suffer immediate and substantial dilution of $0.26 per share in the net tangible book value of the common stock. See the section entitled Dilution below for a more detailed discussion of the dilution you will incur

if you purchase common stock in this offering.

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***You may experience future dilution as a result of future equity offering and exercise of outstanding options and warrants.***

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering. As of November 28, 2012, 8,578,000 shares of common stock were reserved for future issuance under our stock option plan. As of that date, there were also options outstanding to purchase 7,741,795 shares of our common stock and warrants outstanding to purchase 8,676,142 shares of our common stock. You will incur dilution upon exercise of any outstanding stock options or warrants.

**Risks Related to The Warrants**

***There is no public market for the warrants to purchase common stock being offered in this offering.***

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any securities exchange. Without an active market, the liquidity of the warrants will be limited.

***Holders of our warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.***

Until you acquire shares of our common stock upon exercise of your warrants, you will have no rights with respect to the shares of our common stock underlying such warrants. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

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## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or Exchange Act. These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

- our lack of profitability and the need for additional capital to operate our business;
- our ability to obtain the necessary U.S. and worldwide regulatory approvals for our drug candidates;
- successful and timely completion of clinical trials for our drug candidates;
- demand for and market acceptance of our drug candidates;
- the availability of qualified third-party researchers and manufacturers for our drug development programs;
- our ability to develop and obtain protection of our intellectual property; and
- other risks and uncertainties, including those set forth herein under the caption Risk Factors and those detailed from time to time in our filings with the SEC.

In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, expects, plans, anticipa believes, estimates, projects, predicts, potential and similar expressions intended to identify forward-looking statements. These statements re our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail under the heading Risk Factors beginning on page S-5 of this prospectus supplement and in our SEC filings. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should read this prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

## USE OF PROCEEDS

We estimate that the net proceeds from the sale of the 19,130,435 units offered by this prospectus supplement, after deducting underwriting fees and expenses, will be approximately $5.7 million, assuming that we sell the maximum number of units we are offering pursuant to this prospectus supplement. If the underwriters exercise their over-allotment option in full, we estimate that our net proceeds will be approximately $6.6 million. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual number of units sold, underwriting fees and proceeds to us are not presently determinable and may be substantially less than the maximum amount set forth above. We believe the net proceeds from this offering will bring us in compliance with the listing standards for NYSE MKT.

We intend to use the net proceeds of this offering for further development of our lead clinical program, including the funding of Rexahn s Phase II clinical study program of Archexin, the Phase I clinical trial of RX-5902 and other general corporate purposes. We cannot estimate precisely the allocation of the net proceeds from this offering. The amounts and timing of the expenditures may vary significantly, depending on numerous factors, including the progress of our clinical trials and other development efforts, as well as the amount of cash used in our operations. Accordingly, our management will have broad discretion in the application of the net proceeds of this offering. We reserve the right to change the use of proceeds as a result of certain contingencies such as competitive developments, opportunities to acquire technologies or products and other factors. Pending the uses described above, we plan to invest the net proceeds of this offering in short- and medium-term, interest bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

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## DILUTION

If you invest in our common stock, you will experience dilution to the extent of the difference between the price per share you pay in this offering and the net tangible book value per share of our common stock immediately after this offering.

Our net tangible book value as of September 30, 2012 was approximately $4,737,401, or $0.05 per share of common stock. Net tangible book value per share is equal to our total tangible assets minus total liabilities, all divided by the number of shares of common stock outstanding as of September 30, 2012. After giving effect to the sale of 19,130,435 shares of common stock by us in this offering (not including the shares of our common stock issuable upon exercise of the warrants as discussed below) at a price of $0.33 per unit, and after deducting our estimated underwriter fees and offering expenses payable by us, our as adjusted net tangible book value would have been approximately $7,991,377 or approximately $0.07 per share of common stock, as of September 30, 2012. This represents an immediate increase in net tangible book value of approximately $0.02 per share to existing stockholders and an immediate dilution of approximately $0.26 per share to new investors. The following table illustrates this calculation on a per share basis:

| | | |
|---|---|---|
| Purchase price per unit | | $ 0.33 |
| Net tangible book value per share as of September 30, 2012 | $ 0.05 | |
| Increase per share attributable to this offering | $ 0.02 | |
| As adjusted net tangible book value per share after this offering | | $ 0.07 |
| Dilution per share to new investors | | $ 0.26 |

The number of shares of common stock shown above to be outstanding after this offering is based on 95,345,656 shares outstanding as of September 30, 2012 and excludes:

- 7,741,795 shares of our common stock subject to outstanding options having a weighted average exercise price of $1.03 per share;
- 8,578,000 shares of our common stock reserved for future issuance pursuant to our existing stock option plan;
- 8,676,142 shares of our common stock that have been reserved for issuance upon exercise of outstanding warrants having a weighted average exercise price of $1.53 per share;
- 10,521,739 shares of our common stock issuable upon the exercise of warrants offered hereby; and
- 765,217 shares of our common stock issuable upon the exercise of the warrant being issued to the representatives of the underwriters in connection with this offering.

Because there is no minimum offering amount required as a condition to the closing of this offering, the dilution per share to new investors may be more than that indicated above in the event that the actual number of shares sold, if any, is less than the maximum number of shares of our common stock we are offering.

The above illustration of dilution per share to investors participating in this offering assumes no exercise of outstanding options to purchase our common stock or outstanding warrants to purchase shares of our common stock. The exercise of outstanding options and warrants having an exercise price less than the offering price will increase dilution to new investors.

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## PRICE RANGE OF OUR COMMON STOCK

Our common stock trades on the NYSE MKT under the symbol RNN. The following table sets forth, for the periods indicated, the reported high and low sales prices per share of our common stock on the NYSE MKT.

| Period | High | Low |
|---|---|---|
| Year Ended December 31, 2012 | | |
| First Quarter | 0.64 | 0.39 |
| Second Quarter | 0.53 | 0.30 |
| Third Quarter | 0.75 | 0.35 |
| Fourth Quarter (through November 28, 2012) | 0.53 | 0.36 |
| Year Ended December 31, 2011 | | |
| First Quarter | 1.84 | 1.07 |
| Second Quarter | 1.39 | 1.15 |
| Third Quarter | 1.27 | 0.91 |
| Fourth Quarter | 1.16 | 0.35 |

On November 28, 2012, the closing sale price for our common stock was $0.47 per share, as reported on the NYSE MKT.

## DESCRIPTION OF SECURITIES

In this offering, we are offering 19,130,435 shares of common stock and warrants to purchase up to 10,521,739 shares of common stock. This prospectus supplement also relates to the offering of shares of our common stock upon the exercise, if any, of the warrants issued in this offering.

The material terms and provisions of our common stock are described under the caption Description of Common Stock starting on page 13 of the accompanying prospectus.

### Warrants

The material terms and provisions of the warrants to purchase 10,521,739 shares of common stock being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. This summary is subject to and qualified in its entirety by the form of warrant, which will be provided to each investor in this offering and will be filed on a Current Report on Form 8-K in connection with this offering.

### General Terms of the Warrants

The warrants to be issued in this offering represent the rights to purchase up to 10,521,739 shares of common stock at an initial exercise price of $0.472 per share. Each warrant may be exercised at any time after November 29, 2012 and from time to time on or after the date of delivery of the warrants through and including the five-year anniversary thereof.

### Exercise

Holders of the warrants may exercise their warrants to purchase shares of our common stock on or before the expiration date by delivering (i) notice of exercise, appropriately completed and duly signed, and (ii) if such holder is not utilizing the cashless exercise provisions with respect to the warrants, payment of the exercise price for the number of shares with respect to which the warrant is being exercised. Warrants may be exercised in whole or in part, but only for full shares of common stock. We provide certain rescission and buy-in rights to a holder if we fail to deliver the shares of common stock underlying the warrants by the third trading day after the date on which delivery of the stock certificate is required by the warrant. With respect to the rescission rights, the holder has the right to rescind the exercise if stock certificates are not timely delivered. The buy-in rights apply if after the third trading day on which delivery of the stock certificate is required by the warrant, the holder purchases (in an open market transaction or otherwise) shares of our common stock to deliver in satisfaction of a sale by the holder of the warrant shares that the holder anticipated receiving from us upon exercise of the warrant. In this event, we will:

pay in cash to the holder the amount equal to the excess (if any) of the buy-in price over the product of (A) such number of warrant shares that we were required to deliver to the holder, times (B) the price at which the sell order giving rise to holder s purchase obligation was executed; and

at the election of holder, either (A) reinstate the portion of the warrant as to such number of shares of common stock, or (B) deliver to the holder a certificate or certificates representing such number of shares of common stock.

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In addition, the warrant holders are entitled to a cashless exercise option if, at any time of exercise, there is no effective registration statement registering, or no current prospectus available for, the issuance or resale of the shares of common stock underlying the warrants. This option entitles the warrant holders to elect to receive fewer shares of common stock without paying the cash exercise price. The number of shares to be issued would be determined by a formula based on the total number of shares with respect to which the warrant is being exercised, the volume weighted average of the prices per share of our common stock on the trading date immediately prior to the date of exercise and the applicable exercise price of the warrants issued in this offering.

The shares of common stock issuable on exercise of the warrants will be, when issued and paid for in accordance with the warrants, duly and validly authorized, issued and fully paid and non-assessable. We will authorize and reserve at least that number of shares of common stock equal to the number of shares of common stock issuable upon exercise of all outstanding warrants.

**Fundamental Transactions**

If, at any time while the warrants are outstanding, we (1) consolidate or merge with or into another corporation, (2) sell all or substantially all of our assets or (3) are subject to or complete a tender or exchange offer pursuant to which holders of our common stock are permitted to tender or exchange their shares for other securities, cash or property, (4) effect any reclassification of our common stock or any compulsory share exchange pursuant to which our common stock is converted into or exchanged for other securities, cash or property, or (5) engage in one or more transactions with another party that results in that party acquiring more than 50% of our outstanding shares of common stock (each, a Fundamental Transaction ), then the holder shall have the right thereafter to receive, upon exercise of the warrant, the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of the number of warrant shares then issuable upon exercise of the warrant, and any additional consideration payable as part of the Fundamental Transaction. Any successor to us or surviving entity shall assume the obligations under the warrant.

In the event of certain Fundamental Transactions, the holders of the warrants will be entitled to receive, in lieu of our common stock and at the holders option, cash in an amount equal to the value of the remaining unexercised portion of the warrant on the date of the transaction determined using Black-Scholes option pricing model with an expected volatility equal to the greater of 100% and the 100-day historical price volatility obtained by Bloomberg L.P. as of the trading day immediately prior to the public announcement of the transaction.

**Subsequent Rights Offerings**

If, at any time while the warrants are outstanding, we issue rights, options or warrants to all holders of our common stock entitling them to purchase our common stock, then the holders of the warrants will be entitled to acquire those rights, options and warrants on the basis of the number of shares of common stock acquirable upon complete exercise of the warrants.

**Pro Rata Distributions**

If, at any time while the warrants are outstanding, we make a dividend or distribution of assets or rights to acquire assets to all holders of our common stock, the holders of the warrants will be entitled to participate in the dividend or distribution of assets or rights to acquire assets on the basis of the number of shares of common stock acquirable upon complete exercise of the warrants.

**Certain Adjustments**

The exercise price and the number of shares of common stock purchasable upon the exercise of the warrants are subject to adjustment upon the occurrence of specific events, including stock dividends, stock splits, combinations and reclassifications of our common stock.

**Delivery of Shares**

Upon the holder s exercise of a warrant, we will promptly, but in no event later than three trading days after the exercise date (the Warrant Share Delivery Date ), issue and deliver, or cause to be issued and delivered, the shares of common stock issuable upon exercise of the warrant. In addition, we will, if the holder provides the necessary information to us, issue and deliver the shares electronically through The Depository Trust Corporation through its Deposit Withdrawal Agent Commission System (DWAC) or another established clearing corporation performing similar functions.

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**Notice of Corporate Action**

We will provide notice to holders of the warrants to provide them with the opportunity to exercise their warrants and hold common stock in order to participate in or vote on the following corporate events:

- if we shall take a record of the holders of our common stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any shares of stock of any class or any other right;
- any capital reorganization of our company, any reclassification or recapitalization of our capital stock or any consolidation or merger with, or any sale, transfer or other disposition of all or substantially all of our property, assets or business to, another corporation; or
- a voluntary or involuntary dissolution, liquidation or winding up of our Company.

**Limitations on Exercise**

The number of warrant shares that may be acquired by any holder upon any exercise of the warrant shall be limited to the extent necessary to insure that, following such exercise (or other issuance), the total number of shares of common stock then beneficially owned by such holder and its affiliates and any other persons whose beneficial ownership of common stock would be aggregated with the holder s for purposes of Section 13(d) of the Exchange Act, does not exceed 4.99% of the total number of issued and outstanding shares of common stock (including for such purpose the shares of common stock issuable upon such exercise), or beneficial ownership limitation. The holder may elect to change this beneficial ownership limitation from 4.99% to 9.9% of the total number of issued and outstanding shares of common stock (including for such purpose the shares of common stock issuable upon such exercise) upon 61 days prior written notice.

**Additional Provisions**

The above summary of certain terms and provisions of the warrants is qualified in its entirety by reference to the detailed provisions of the warrants, the form of which will be filed as an exhibit to a Current Report on Form 8-K that is incorporated herein by reference. We are not required to issue fractional shares upon the exercise of the warrants. No holders of the warrants will possess any rights as a stockholder under those warrants until the holder exercises those warrants, except as set forth in the warrants. The warrants may be transferred independent of the common stock they were issued with, on a form of assignment, subject to all applicable laws.

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## UNDERWRITING

We have entered into an underwriting agreement, dated November 29, 2012, with Maxim Group LLC and Burrill LLC acting as representatives of the underwriters. The underwriting agreement provides for the purchase of a specific number of units comprised of shares of common stock and warrants to purchase common stock by each of the underwriters. The underwriters obligations are several, which means that each underwriter is required to purchase a specified number of units, but is not responsible for the commitment of any other underwriter to purchase units. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase the number of units set forth opposite its name below.

| Underwriter | Number of Units |
|---|---|
| Maxim Group LLC | 9,565,218 |
| Burrill LLC | 9,565,217 |
| Total | 19,130,435 |

The underwriters have agreed to purchase all of the units offered by this prospectus supplement (other than those covered by the over-allotment option described below) if any are purchased.

The shares of common stock and the warrants to purchase common stock offered hereby should be ready for delivery on or about December 4, 2012 against payment in immediately available funds. The underwriters are offering the units subject to various conditions and may reject all or part of any order. The representative has advised us that the underwriters propose to offer the units directly to the public at the public offering price that appears on the cover page of this prospectus supplement. After the units are released for sale to the public, the representative may change the offering price and other selling terms at various times.

We have granted to the underwriters an option, exercisable no later than 45 calendar days after the date of the underwriting agreement to purchase up to 2,869,565 shares of common stock at a price, after the underwriting discount, of $0.3008 per share and/or warrants to purchase up to 1,578,261 shares of common stock at a price, after the underwriting discount, of $0.0094 per warrant from us to cover overallotments. The underwriters may exercise this option only to cover over-allotments, if any, made in connection with this offering. To the extent the option is exercised and the conditions of the underwriting agreement are satisfied, we will be obligated to sell to the underwriters, and the underwriters will be obligated to purchase, these additional shares of common stock and/or warrant to purchase common stock.

The following table shows the per unit and total underwriting discount that we will pay to the underwriters and the proceeds we will receive before expenses. These amounts are shown assuming both no exercise and full exercise of the underwriters cover-allotment option to purchase additional shares and/or additional warrants.

| | Per Unit | Total Without Over-allotment | Total with Over-allotment |
|---|---|---|---|
| Public offering price | $ 0.3300 | $ 6,313,043.55 | $ 7,260,000 |
| Underwriting discount | $ 0.0198 | $ 378,782.61 | $ 435,600 |
| Proceeds to us, before expenses | $ 0.3102 | $ 5,934,260.94 | $ 6,824,400 |

We estimate that the total expenses of the offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discount, will be approximately $235,000, and are payable by us. In addition to the underwriting discount, we have agreed to reimburse the expenses of the representatives of the underwriters for their travel, out-of-pocket expenses and legal fees up to an amount equal to the lesser of (i) $100,000 and (ii) 1% of the aggregate gross proceeds received by us in the offering, including the exercise of the over-allotment option, subject to compliance with FINRA Rule 5110(f)(2)(D). We have also agreed to issue to the representatives of the underwriters warrants to purchase up to a number of shares of common stock equal to 4% of the shares of common stock issued in this offering (excluding shares issued upon exercise of the over-allotment option). The warrants issued to the representatives will have the same terms as the warrants sold pursuant to this prospectus supplement, except that the warrants to the representatives shall have a termination date of July 5, 2016 (the five year anniversary of the effective date of the registration statement) and shall have an exercise price of $0.40 or 125% of the public

offering price per share in this offering. In addition, pursuant to FINRA Rule 5110(g), neither the warrants issued to the representatives nor any warrant shares issued upon exercise of the warrants shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, except the transfer of any security:

by operation of law or by reason of reorganization of the Company;

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to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction for the remainder of the time period;

if the aggregate amount of securities of the Company held by the holder of the Warrants or related person do not exceed 1% of the securities being offered;

that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction for the remainder of the time period.

The units are being offered by the underwriters, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of certain legal matters by counsel for the representatives of the underwriters and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify this offer and to reject orders in whole or in part. The underwriting agreement provides that the obligations of the underwriters are conditional and may be terminated at its discretion based on its assessment of the state of the financial markets. The obligations of the underwriters may also be terminated upon the occurrence of the events specified in the underwriting agreement.

*Determination of Offering Price.* The offering price for our common stock was determined by negotiations between us and the representatives of the underwriters. The factors we considered in these negotiations included our compliance with NYSE MKT continued listing requirements, the funding required to continue the development of our drugs and to meet our operating costs, current market conditions and market valuations of other companies that we and the representatives of the underwriters believed to be comparable to us.

*Lock-ups.* Pursuant to the Underwriting Agreement, we have agreed to not issue, enter into an agreement to issue or announce the issuance of common stock or securities convertible or exercisable into common stock for a period of 90 days following the closing of the underwriting agreement, subject to the following exceptions: (a) our issuance of common stock, options to acquire common stock or other equity awards pursuant to our employee benefit plans as such plans now exist, (b) our issuance of common stock pursuant to the valid exercises, vesting or settlements of options, warrants or rights outstanding on the date of this prospectus supplement and (c) our issuance of shares of common stock or securities convertible or exercisable into shares of common stock in connection with any acquisition, strategic partnership, joint venture or collaboration to which we are or may become a party, or the acquisition or license of any products or technology by us, but do not include any such transaction in which we are issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

In addition, our directors and executive officers have agreed to a 90 day lock-up from the date of the pricing of this offering with respect to shares of our common stock (or other securities convertible into or exercisable or exchangeable for our common stock) that they beneficially own, subject to certain exceptions. This means that, for such 75-day period, such persons may not offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of these securities, without the prior written consent of Maxim Group LLC. The exceptions permit, among other things and subject to restrictions, (1) if the holder is a natural person, certain transfers made as a bona fide gifts to any member of the holder s immediate family, to a trust the beneficiaries of which are exclusively the holder or members of the holder s immediate family or to a charity or educational institute, or by will or intestate succession upon the death of the holder, and (2) if the holder is a corporation, partnership, limited liability company or other business entity (a) transfers to any shareholder, partner or member of, or owner of a similar equity interest in, the holder if such transfer is not for value, (b) transfers in connection with the sale of all or substantially all of the holder s capital stock, partnership interests, membership interests or other similar equity interests, or all or substantially all of the holder s assets, in any such case not undertaken for the purpose of avoiding the restrictions imposed by the lock-up agreement or (c) to another corporation, partnership, limited liability company or other business entity so long as the transferee is an affiliate of the holder and such transfer is not for value.

The applicable restricted period will be automatically extended if (i) during the last 17 days of the restricted period we issue an earnings release or material news or a material event relating to us occurs or (ii) prior to the expiration of the restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the restricted period, in either of which case the restrictions described above will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

*Indemnity.* We have agreed to indemnify the underwriters, persons who control the underwriters, and the underwriters partners, directors, officers, employees and agents against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of these liabilities.

*Stabilization.* In connection with this offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids. Stabilizing transactions permit bids to purchase sunits so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.

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Over-allotment transactions involve sales by the underwriters of units in excess of the number of units the underwriter is obligated to purchase. This creates a syndicate short position, which may be either a covered short position or a naked short position. In a covered short position, the number of units over-allotted by the underwriters is not greater than the number of units that it may purchase in the over-allotment option. In a naked short position, the number of units involved is greater than the number of units in the over-allotment option. The underwriters may close out any short position by exercising the over-allotment option and/or purchasing units in the open market. In this offering, the underwriter does not have an over-allotment option.

Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of units to close out the short position, the underwriter will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the over-allotment option. If the underwriter sells more units than could be covered by exercise of the over-allotment option and, therefore, has naked short position, the position can be closed out only by buying units in the open market. A naked short position is more likely to be created if the underwriter is concerned that after pricing, there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the units originally sold by that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriter make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the NYSE MKT, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

*Our Relationship with the underwriters.* From time to time, the underwriters and some of its affiliates have provided, and may continue to provide, investment banking services to us in the ordinary course of their businesses, and have received, and may continue to receive, compensation from us for such services.

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## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information that we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement. These documents may include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as Proxy Statements.

This prospectus supplement incorporates by reference the documents listed below that we previously have filed with the SEC and any additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and prior to the termination of the offering covered by this prospectus supplement, except to the extent that any information contained in such filings is deemed furnished in accordance with SEC rules, including, but not limited to, information furnished under Items 2.02 and 7.01 of any Current Report on Form 8-K including related exhibits:

- our Annual Report on Form 10-K for the year ended December 31, 2011, filed with the SEC on March 16, 2012 (including the portions of our definitive Proxy Statement on Schedule 14A filed with the SEC on April 26, 2012 incorporated therein by reference);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012, June 30, 2012 and September 30, 2012, filed with the SEC on November 8, 2012;
- our Current Reports on Form 8-K filed with the SEC on January 17, 2012, June 21, 2012 and November 27, 2012; and
- the description of our common stock contained in our Registration Statement on Form 8-A filed under the Exchange Act on May 23, 2008, including any amendment or report filed for the purpose of updating such description.

You can obtain a copy of any or all of the documents incorporated by reference in this prospectus supplement (other than an exhibit to a document, unless that exhibit is specifically incorporated by reference into this prospectus supplement) from the SEC on its web site at *http://www.sec.gov*. You also can obtain these documents from us without charge by visiting our internet web site *http://www.rexahn.com* or by requesting them in writing, by email or by telephone at the following address:

Tae Heum (Ted) Jeong

Senior Vice President of Finance & Chief Financial Officer

Rexahn Pharmaceuticals, Inc.

15245 Shady Grove Road, Suite 455

Rockville, Maryland 20850

(240) 268-5300

jeongth@rexahn.com

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## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act, and file annual, quarterly and current reports, proxy statements and other information required by the Exchange Act with the SEC. You may read and copy any reports, proxy statements and other information we file at the SEC s public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. You may also access filed documents at the SEC s web site at *http://www.sec.gov*.

We are incorporating by reference some information about us that we file with the SEC. We are disclosing important information to you by referencing those filed documents. Any information that we reference this way is considered part of this prospectus. The information in this prospectus supplement supersedes statements made in the accompanying prospectus and information incorporated by reference that we have filed with the SEC prior to the date of this prospectus supplement, while information that we file with the SEC after the date of this prospectus supplement that is incorporated by reference will automatically update and supersede this information.

## LEGAL MATTERS

The validity of the common stock offered hereby has been passed upon for us by Patton Boggs LLP, Washington, D.C. Ellenoff Grossman & Schole LLP will pass upon certain legal matters for the representatives of the underwriters in connection with this offering. As of the date of this prospectus supplement, certain members of Patton Boggs LLP held 120,000 vested and 80,000 unvested options to acquire shares of our common stock.

## EXPERTS

The financial statements of Rexahn Pharmaceuticals, Inc. appearing in the Annual Report on Form 10-K as of December 31, 2011 and 2010, and the related statements of operations, stockholders equity (deficit) and comprehensive loss, and cash flows for each of the three years in the period ended December 31, 2011 and the cumulative period from March 19, 2001 (inception) to December 31, 2011, and management s assessment of the effectiveness of internal control over financial reporting as of December 31, 2011 incorporated by reference in this prospectus supplement and the accompanying prospectus, have been audited by ParenteBeard LLC, an independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference have been so incorporated herein by reference given on the authority of such firm as experts in accounting and auditing.

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**UP TO $100,000,000 OF OUR**

**COMMON STOCK**

**PREFERRED STOCK**

**WARRANTS**

**DEBT SECURITIES**

**UNITS**

We may offer from time to time up to $100,000,000 in total of:

- shares of our common stock, par value $0.0001 per share (including the associated preferred stock purchase rights);
- shares of our preferred stock, par value $0.0001 per share;
- debt securities;
- warrants to purchase shares of common stock, preferred stock or debt securities; or
- units (any combination of our common stock, preferred stock, warrants or debt securities).

We may offer the common stock, preferred stock, debt securities, warrants, and units separately or together, in separate series, in amounts, at prices and on terms to be set forth in one or more supplements to this prospectus. The preferred stock, warrants and debt securities we may offer may be convertible into or exercisable or exchangeable for common or preferred stock or debt or other securities of ours or equity securities or debt of one or more other entities. When we decide to issue securities, we will provide you with the specific terms and the public offering price of the securities in prospectus supplements. In the case of debt securities, these terms will include, as applicable, the specific designation, aggregate principal amount, maturity, rate or formula of interest, premium, subordination terms, terms of convertibility and terms for redemption. In the case of shares of preferred stock, these terms will include, as applicable, the specific title and stated value, and any dividend, liquidation, redemption, conversion, voting and other rights. You should read this prospectus and the prospectus supplements carefully before you invest. This prospectus may not be used to offer or sell securities unless accompanied by a prospectus supplement.

Our common stock is listed on the NYSE Amex and traded under the symbol RNN. None of the other securities are currently publicly traded. On June 21, 2011, the last reported sale price of our common stock on NYSE Amex was $1.26 per share. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement.

Our principal executive offices are located at 15245 Shady Grove Road, Suite 455, Rockville, Maryland 20850 and our telephone number is (240) 268-5300.

**You should read carefully this prospectus, the documents incorporated by reference in this prospectus and any prospectus supplement before you invest. Please see Risk Factors beginning on page 5 for more information.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

**The date of this prospectus is July 5, 2011**

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## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

- our lack of profitability and the need for additional capital to operate our business;
- our ability to obtain the necessary U.S. and worldwide regulatory approvals for our drug candidates;
- successful and timely completion of clinical trials for our drug candidates;
- demand for and market acceptance of our drug candidates;
- the availability of qualified third-party researchers and manufacturers for our drug development programs;
- our ability to develop and obtain protection of our intellectual property; and
- other risks and uncertainties, including those set forth herein under the caption Risk Factors and those detailed from time to time in our filings with the SEC.

In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, expects, plans, anticipa believes, estimates, projects, predicts, potential and similar expressions intended to identify forward-looking statements. These statements re our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail under the heading Risk Factors beginning on page 5 herein and in our SEC filings. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should read this prospectus and the documents we have filed with the SEC that are incorporated by reference with the understanding that our actual future results may be materially different from what we expect. We undertake no obligation to update these forward-looking statements. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC using a shelf registration process. Under this shelf process, we may from time to time offer up to $100,000,000 in total of (a) shares of common stock, $0.0001 par value per share (including the preferred stock purchase rights attached thereto), (b) shares of preferred stock, $0.0001 par value per share, in one or more series, (c) warrants to purchase shares of common stock, preferred stock, or debt securities, or debt securities, (d) debt securities or (e) any combination of our common stock, preferred stock, warrants or debt securities, either individually or as units consisting of one or more of the foregoing, each at prices and on terms to be determined at the time of sale. The common stock, preferred stock, warrants, debt securities, and units are collectively referred to in this prospectus as securities. The securities offered pursuant to this prospectus may be one or more series of issuances and the total offering price of the securities will not exceed $100,000,000 (or its equivalent (based on the applicable exchange rate at the time of the sale) in one or more foreign currencies, currency units or composite currencies as shall be designated by us).

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with the additional information described below under the heading Where You Can Find More Information.

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The registration statement that contains this prospectus, including the exhibits to the registration statement and the information incorporated by reference, contains additional information about the securities offered under this prospectus. That registration statement can be read at the SEC web site or at the SEC offices mentioned below under the heading Where You Can Find More Information.

You should rely only on the information provided in this prospectus and in any prospectus supplement, including the information incorporated by reference. We have not authorized anyone to provide you with different information. You should not assume that the information in this prospectus or any supplement to this prospectus is accurate at any date other than the date indicated on the cover of these documents.

## SUMMARY

*This summary highlights selected information about Rexahn Pharmaceuticals, Inc. and a general description of the securities we may offer. This summary is not complete and does not contain all of the information that may be important to you. For a more complete understanding of us and the terms of the securities we will offer, you should read carefully this entire prospectus, including the Risk Factors section, the applicable prospectus supplement for the securities and the other documents we refer to and incorporate by reference. In particular, we incorporate important business and financial information into this prospectus by reference.*

### Our Company

Rexahn is a clinical stage biopharmaceutical company dedicated to the discovery, development, and commercialization of innovative treatments for cancer, central nervous system ( CNS ) disorders, sexual dysfunction and other unmet medical needs. At Rexahn, therapies are developed that make it possible to regain normalcy for patients suffering from disease. We have three drug candidates in Phase II clinical trials this year and seven other drug candidates in pre-clinical development. We intend to leverage our drug-discovery technologies, scientific expertise and developmental know-how to develop and commercialize targeted cancer drugs with greater clinical benefits for patients and new drugs for the treatment of diseases of the central nervous system and sexual dysfunction. We will continue to identify internally developed compounds as potential drug candidates, as well as assess compounds developed by others and, if necessary, license the rights to these compounds in order to develop and commercialize them as drugs.

We currently have three clinical stage drug candidates: Archexin®, Serdaxin®, and Zoraxel .

***Archexin*®**

Archexin is a 20 nucleotide single stranded DNA anti-sense molecule, which we believe is a first-in-class inhibitor of the protein kinase Akt. Akt plays critical roles in cancer cell proliferation, survival, angiogenesis, metastasis, and drug resistance. Archexin received orphan drug designation from the U.S. Food and Drug Administration, or FDA, for five cancer indications (renal cell carcinoma, or RCC, glioblastoma, ovarian cancer, stomach cancer and pancreatic cancer). The FDA orphan drug program provides seven years of marketing exclusivity after approval and tax incentives for clinical research. In October 2006, we announced the conclusion of the Phase I clinical trial of Archexin, our leading drug candidate. The Phase I clinical trial of Archexin, which took place at Georgetown University and the University of Alabama, was an open-label, dose-escalation study with 14 day continuous infusion in 17 patients with solid tumors. The Phase I trial was intended primarily to assess the safety and tolerability of Archexin in patients with advanced cancer. The trial results showed that the dose limiting toxicity of Archexin occurring at 315 mg/m$^2$ dose in the form of fatigue. No other serious adverse events such as hematological toxicities were observed in this Phase I study. In the Phase I study stable disease was observed in two out of the 17 Patients. Archexin is currently being studied in a Phase II clinical trial for the treatment of pancreatic cancer with several patients enrolled and enrollment continuing in 2011. The Archexin Phase IIa trial is a single-arm, open-label study looking to enroll35 subjects and is being conducted globally in the United States and India. Archexin will be administered in combination with gemcitabine in patients with advanced pancreatic cancer to assess safety and preliminary efficacy, maximum tolerated dose, and overall survival. Archexin s Phase II clinical trial protocol for the treatment of RCC was accepted by the FDA, but issues with enrollment have delayed the trial. The enrollment issues have caused Rexahn to reallocate resources and reprioritize Archexin to pursue studies in pancreatic cancer. We own one issued U.S. patent for Archexin.

In October 2006, we announced the conclusion of the Phase I clinical trial of Archexin. We currently estimate that the Phase IIa trials for pancreatic cancer patients will be completed in the first half of 2012 and will require approximately an additional $450,000.

***Serdaxin*® (RX-10100)**

Serdaxin is an extended release formulation of clavulanic acid, which is an ingredient present in antibiotics approved by the FDA. We are currently developing Serdaxin for the treatment of depression and neurodegenerative disorders. We have recently concluded a Phase IIa proof of concept clinical trial for major depressive disorder ( MDD ), with Serdaxin. The proof-of-concept, randomized, double blind, placebo controlled

and dose ranging (5 mg, 10 mg, 15 mg administered twice daily) Phase IIa clinical trial enrolled 77 MDD patients at multiple sites in the United States. No statistical difference was seen

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between the three doses and the placebo on the Montgomery-Asberg Depression Rating Scale ( MADRS ). A high dropout rate of non-responders in the placebo group contributed to a higher-than-expected response for the placebo-treated subjects that completed the study. We believe this high dropout rate may have contributed to the absence of statistical significance. In our ad hoc analysis, results from the Phase IIa clinical trial showed that patients suffering from MDD responded most positively to the 5 mg dose of the drug, and supported proceeding to a Phase IIb clinical trial. In the subgroup analysis, the study showed that patients with severe MDD taking 5 mg of Serdaxin had significant improvement in MADRS, scores after 8 weeks of treatment, compared to the placebo group. Among the 77 patients, 53 patients were classified as having severe MDD. Of the 14 severe MDD patients treated with 5 mg of Serdaxin, MADRS scores significantly improved by 55.6%, compared to only 34.0% in the placebo group (n = 14). 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 MADRS score of greater than or equal to 50% after treatment. Additionally, 42.9% of patients in the treatment group at 5 mg of Serdaxin were in remission with a MADRS score of less than or equal to 12 after eight weeks of treatment, versus 14.3% in the placebo group (p=0.209). During the trial there were no reports of 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 ). The 5 mg Serdaxin-treated group (20 adverse events) reported 40% fewer adverse events than the placebo group (36 adverse events). In addition, the 5 mg Serdaxin-treated group reported a lower dropout rate by week 2 of 4.8% compared to 9.1% in the placebo group, and by week 8 the drop-out rate for the Serdaxin group was only 14.3% compared to 59.1% in the placebo group. Pre-clinical studies suggest that Serdaxin may have an inverted, U-shape dose-response curve. This inverted, dose-response relationship may explain the observation in the Phase IIa trial of a more positive response in patients taking the lowest dose. Due to this phenomenon, higher doses of Serdaxin may not be effective, suggesting an additional potential benefit with respect to the risk of overdose problems prevalent in other psychogenic medications. A Phase IIb trial for MDD with lower doses started recruiting patients in early 2011. We are also currently planning the Phase II clinical trial for Parkinson s disease ( PD ), with Serdaxin and have submitted the protocol for this study to the FDA.

We currently estimate that the Phase IIb MDD studies will require approximately an additional $4,200,000 through the first half of 2012. Phase II clinical trials for the use of Serdaxin for PD are being developed. We currently estimate PD studies will require $600,000 through the first half of 2012.

In March 2005, we licensed-in CNS related intellectual property from Revaax Pharmaceuticals, LLC and agreed to use commercially reasonable efforts to develop and commercialize one or more licensed products. The intellectual property rights acquired cover use of certain compounds for anxiety, depression, aggression, cognition, Attention Deficit Hyperactivity Disorder and neuroprotection. We have an exclusive license rights to four issued U.S. patents owned by Revaax Pharmaceuticals, Inc. relating to these uses.

***Zoraxel*** **(RX-10100)**

We are developing Zoraxel for treatment of erectile dysfunction. Zoraxel is an immediate release formulation of clavulanic acid, the same active ingredient found in our product candidate Serdaxin. The Phase IIa proof of concept clinical trial of Zoraxel is complete with positive results and the Phase IIb trial will commence in 2011. Rexahn s decision to move forward with the Phase IIb trial is supported by data from the Phase IIa proof of concept, randomized, double blind, placebo controlled and dose ranging (5 mg, 10 mg, 15 mg) study of 39 erectile dysfunction patients (ages of 18 to 65) treated with Zoraxel. The Phase IIa study was completed in May 2009 and demonstrated that Zoraxel consistently improved International Index of Erectile Function, ( IIEF ), scores of treated subjects. The Phase IIa study results showed treatment with 15mg of Zoraxel at week 8 improving subjects IIEF-EF scores by 6.5, a value obtained from the changes from the baseline between scores of 15 mg of Zoraxel (5.3) and the placebo group (-1.2). Furthermore, the study showed among treated subjects a dose dependent treatment effect with improved erectile function and quality of life measures. The study also showed Zoraxel to be well tolerated in the patients in the study with no serious adverse events reported. To examine the clinical relevance of Zoraxel as an erectile dysfunction drug, an effect size analysis has been conducted. Effect size ( ES ) is a data analysis index developed by Dr. Jacob Cohen of New York University and is derived from the improvement in IIEF mean score for the treatment group minus the improvement in IIEF mean score of the placebo group over the treatment period, divided by the standard deviation of the entire sample at baseline. An ES value greater than 0.80 is deemed a considerable change under the ES criteria. The ES for IIEF-EF and IIEF-intercourse satisfaction indices of Zoraxel (2.59 and 0.88, respectively) were larger than 0.80, suggesting a considerable change in sexual experiences in Zoraxel-treated patients based on the ES criteria. The Phase IIb study is designed to assess Zoraxel s efficacy in approximately 225 male subjects, ages 18 to 65, with ED. The double blind, randomized, placebo-controlled, 12-week study will include IIEF, Sexual Encounter Profile, or SEP, 2 (Penetration) & 3 (Sexual Intercourse) survey, as primary endpoints with 25 and 50 mg doses. The Phase IIb study is expected to begin in the second half of 2011 and the preliminary data is expected to be available in 2012. The study will be conducted at multiple sites in the United States.

We currently estimate that these Phase IIb studies will require approximately $3,000,000 through the remainder of 2011 and 2012.

In March 2005, we licensed-in CNS-related intellectual property from Revaax Pharmaceuticals, LLC and agreed to use commercial reasonable efforts to develop and commercialize one or more licensed products. The intellectual property rights acquired cover use of certain compounds in

persons with sexual dysfunction. We have an exclusive license rights to one issued U.S. patent owned by Revaax Pharmaceuticals, Inc. relating to this use.

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**Risk Factors**

Our business is subject to substantial risk. Please carefully consider the Risk Factors section and other information in this prospectus supplement and the accompanying prospectus for a discussion of risks. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus supplement and the accompanying prospectus. Additional risks and uncertainties not presently known to us or that we deem currently immaterial may also impair our business operations. You should be able to bear a complete loss of your investment.

**Corporate Information**

Our principal executive offices are located at 15245 Shady Grove Road, Suite 455, Rockville, Maryland 20850 and our telephone number is (240) 268-5300. Our website address is www.rexahn.com. **Information contained on our website or through our website, is not deemed to be a part of this prospectus.**

**Securities We Are Offering**

We may offer any of the following securities from time to time:

- shares of our common stock, par value $0.0001 (including the associated preferred stock purchase rights);
- shares of our preferred stock; par value $0.0001;
- debt securities;
- warrants to purchase shares of common stock, preferred stock or debt securities; or
- units (any combination of our common stock, preferred stock, warrants or debt securities).

When we use the term securities in this prospectus, we mean any of the securities we may offer with this prospectus, unless we say otherwise. The total dollar amount of all securities that we may issue will not exceed $100,000,000. This prospectus, including the following summary, describes the general terms that may apply to the securities; the specific terms of any particular securities that we may offer will be described in a separate supplement to this prospectus.

*Common Stock.* We may offer shares of our common stock. Our common stock currently is listed on the NYSE Amex under the symbol RNN.

*Preferred Stock.* We may offer our preferred stock in one or more series. For any particular series we offer, the applicable prospectus supplement will describe the specific designation; the aggregate number of shares offered; the rate and periods, or manner of calculating the rate and periods, for dividends, if any; the stated value and liquidation preference amount, if any; the voting rights, if any; the terms on which the series will be convertible into or exchangeable for other securities or property, if any; the redemption terms, if any; and any other specific terms.

*Debt Securities.* Our debt securities may be senior or subordinated in right of payment and may be convertible into our debt securities, preferred stock, common stock or other securities or property. For any particular debt securities we offer, the applicable prospectus supplement will describe the specific designation, the aggregate principal or face amount and the purchase price; the ranking, whether senior or subordinated; the stated maturity; the redemption terms, if any; the conversion terms, if any; the rate or manner of calculating the rate and the payment dates for interest, if any; the amount or manner of calculating the amount payable at maturity and whether that amount may be paid by delivering cash, securities or other property; and any other specific terms. We will issue the senior and subordinated debt securities under separate indentures between us and a trustee we will identify in an applicable prospectus supplement.

*Warrants.* We may offer warrants to purchase our common stock, preferred stock and debt securities. For any particular warrants we offer, the applicable prospectus supplement will describe the underlying security; expiration date; the exercise price or the manner of determining the exercise price; the amount and kind, or the manner of determining the amount and kind, of any security to be delivered by us upon exercise; and any other specific terms. We may issue the warrants under warrant agreements between us and one or more warrant agents.

*Units.* We may offer any combination of one or more of the other securities described in this prospectus, together as units. In a prospectus supplement, we will describe the particular combination of securities constituting any units and any other specific terms of the units.

*Listing.* If any securities are to be listed or quoted on a securities exchange or quotation system, the applicable prospectus supplement will say so.

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## RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the specific risks set forth under the caption Risk Factors in the applicable prospectus supplement before making an investment decision. The risks and uncertainties described in the prospectus supplement are not the only ones we face. Additional risks and uncertainties that we are unaware of or that we believe are not material at the time could also materially adversely affect our business, financial condition or results of operations. In any case, the value of our common stock, preferred stock, warrants, or units could decline, and you could lose all or part of your investment. You should also refer to the other information contained in this prospectus or incorporated herein by reference, including our consolidated financial statements and the notes to those statements and the risks and uncertainties described in Item 1 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, as amended, and subsequent quarterly reports on Form 10-Q (including amendments thereto) which are incorporated by reference into this prospectus, as the same may be updated from time to time by our future filings under the Exchange Act. For more information, see the section entitled Incorporation of Certain Documents by Reference. See also the information contained under the heading Special Note Regarding Forward-Looking Statements.

## USE OF PROCEEDS

We will use the net proceeds received from the sale of the securities for development of current and future product candidates, clinical trials, working capital and general corporate purposes or as specified in a prospectus supplement.

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## RATIO OF EARNINGS TO FIXED CHARGES

Our earnings are inadequate to cover fixed charges. The following table sets forth the dollar amount of the coverage deficiency (in thousands) for the periods indicated.

| | Year Ended December 31, | | | | | Three Months Ended March 31, |
|---|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
| Ratio of earnings to fixed charges[1] | N/A | N/A | N/A | N/A | N/A | N/A |
| Deficiency of earnings to cover fixed charges | $ (6,486) | $ (4,442) | $(3,682) | $ (2,903) | $ (14,022) | $ (4,436) |

(1) Ratios of earnings to fixed charges are computed by dividing earnings by fixed charges. For this purpose, earnings consist of net loss before fixed charges. Fixed charges consist of interest embedded in the rent paid on operating leases for office and laboratory space.

**Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends**

We have not included a ratio of earnings to combined fixed charges and preferred stock dividends because we do not have any preferred stock outstanding.

## P LAN OF DISTRIBUTION

We may sell the securities being offered by this prospectus separately or together:

- directly to purchasers;
- through agents;
- to or through underwriters;
- through dealers;
- through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction; or
- through a combination of any of these methods of sale.

In addition, we may issue the securities being offered by this prospectus as a dividend or distribution.

We may effect the distribution of the securities from time to time in one or more transactions at a fixed price or prices, which may be changed from time to time:

at market prices prevailing at the times of sale;

at prices related to prevailing market prices; or

at negotiated prices.

We will describe the method of distribution of the securities in the prospectus supplement.

We may directly solicit offers to purchase the securities offered by this prospectus. Agents designated by us from time to time may solicit offers to purchase the securities. We will name any agent involved in the offer of sale of the securities and set forth any commissions payable by us to an agent in the prospectus supplement. Unless otherwise indicated in the prospectus supplement, any agent will be acting on a best efforts basis for the period of its appointment. Any agent may be deemed to be an underwriter of the securities as that term is defined in the Securities Act.

If we use an underwriter or underwriters in the sale of securities, we will execute an underwriting agreement with the underwriter or underwriters at the time we reach an agreement for sale. We will set forth in the prospectus supplement the names of the specific managing underwriter or underwriters, as well as any other underwriters, and the terms of the transactions, including compensation of the underwriters and dealers. This compensation may be in the form of discounts, concessions or commissions. Underwriters and others participating in any offering of the securities may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. We will describe any of these activities in the prospectus supplement.

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If a dealer is used in the sale of the securities, we or an underwriter will sell securities to the dealer, as principal. The dealer may resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The prospectus supplement will set forth the name of the dealer and the terms of the transactions.

We may directly solicit offers to purchase the securities, and we may sell directly to institutional investors or others. These persons may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale of the securities. The prospectus supplement will describe the terms of any direct sales, including the terms of any bidding or auction process.

Agreements we enter into with agents, underwriters and dealers may entitle them to indemnification by us against specified liabilities, including liabilities under the Securities Act, or to contribution by us to payments they may be required to make in respect of these liabilities. The prospectus supplement will describe the terms and conditions of indemnification or contribution.

We may authorize underwriters, dealers and agents to solicit offers by certain institutional investors to purchase offered securities under contracts providing for payment and delivery on a future date specified in the prospectus supplement. The prospectus supplement will also describe the public offering price for the securities and the commission payable for solicitation of these delayed delivery contracts. Delayed delivery contracts will contain definite fixed price and quantity terms. The obligations of a purchase under these delayed delivery contracts will be subject to only two conditions:

- that the institution s purchase of the securities at the time of delivery of the securities is not prohibited under the law of any jurisdiction to which the institution is subject; and
- that we shall have sold to the underwriters the total principal amount of the offered securities, less the principal amount covered by the delayed contracts.

To the extent permitted by and in accordance with Regulation M under the Exchange Act, in connection with an offering an underwriter may engage in over-allotments, stabilizing transactions, short covering transactions and penalty bids. Over-allotments involve sales in excess of the offering size, which creates a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would be otherwise. If commenced, the underwriters may discontinue any of the activities at any time.

To the extent permitted by and in accordance with Regulation M under the Exchange Act, any underwriters who are qualified market makers on the NYSE Amex may engage in passive market making transactions in the securities on the NYSE Amex during the business day prior to the pricing of an offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker s bid, however, the passive market maker s bid must then be lowered when certain purchase limits are exceeded.

No securities may be sold under this prospectus without delivery, in paper format, in electronic format on the Internet, or both, of the applicable prospectus supplement describing the method and terms of the offering.

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## DESCRIPTION OF DEBT SECURITIES

We may offer any combination of senior debt securities or subordinated debt securities. We may issue the senior debt securities and the subordinated debt securities under separate indentures between us, as issuer, and the trustee or trustees identified in a prospectus supplement. Further information regarding the trustee may be provided in the prospectus supplement. The form for each type of indenture is filed as an exhibit to the registration statement of which this prospectus is a part.

The prospectus supplement will describe the particular terms of any debt securities we may offer and may supplement the terms summarized below. The following summaries of the debt securities and the indentures are not complete. We urge you to read the indentures filed as exhibits to the registration statement that includes this prospectus and the description of the additional terms of the debt securities included in the prospectus supplement.

### General

Within the total dollar amount of this shelf registration statement, we may issue an unlimited principal amount of debt securities in separate series. We may specify a maximum aggregate principal amount for the debt securities of any series. The debt securities will have terms that are consistent with the indentures. Senior debt securities will be unsecured and unsubordinated obligations and will rank equal with all our other unsecured and unsubordinated debt. Subordinated debt securities will be paid only if all payments due under our senior indebtedness, including any outstanding senior debt securities, have been made.

The indentures might not limit the amount of other debt that we may incur or whether that debt is senior to the debt securities offered by this prospectus, and might not contain financial or similar restrictive covenants. The indentures might not contain any provision to protect holders of debt securities against a sudden or dramatic decline in our ability to pay our debt.

The prospectus supplement will describe the debt securities and the price or prices at which we will offer the debt securities. The description will include:

- the title and form of the debt securities;
- any limit on the aggregate principal amount of the debt securities or the series of which they are a part;
- the person to whom any interest on a debt security of the series will be paid;
- the date or dates on which we must repay the principal;
- the rate or rates at which the debt securities will bear interest;
- if any, the date or dates from which interest will accrue, and the dates on which we must pay interest;
- the place or places where we must pay the principal and any premium or interest on the debt securities;
- the terms and conditions on which we may redeem any debt security, if at all;

any obligation to redeem or purchase any debt securities, and the terms and conditions on which we must do so;

the denominations in which we may issue the debt securities;

the manner in which we will determine the amount of principal of or any premium or interest on the debt securities;

the currency in which we will pay the principal of and any premium or interest on the debt securities;

the principal amount of the debt securities that we will pay upon declaration of acceleration of their maturity;

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the amount that will be deemed to be the principal amount for any purpose, including the principal amount that will be due and payable upon any maturity or that will be deemed to be outstanding as of any date;

if applicable, that the debt securities are defeasible and the terms of such defeasance;

if applicable, the terms of any right to convert debt securities into, or exchange debt securities for, shares of our debt securities, preferred stock or common stock or other securities or property;

whether we will issue the debt securities in the form of one or more global securities and, if so, the respective depositaries for the global securities and the terms of the global securities;

the subordination provisions that will apply to any subordinated debt securities;

any addition to or change in the events of default applicable to the debt securities and any change in the right of the trustee or the holders to declare the principal amount of any of the debt securities due and payable;

any addition to or change in the covenants in the indentures; and

any other terms of the debt securities not inconsistent with the applicable indentures.

We may sell the debt securities at a substantial discount below their stated principal amount. We will describe U.S. federal income tax considerations, if any, applicable to debt securities sold at an original issue discount in the prospectus supplement. An original issue discount security is any debt security sold for less than its face value, and which provides that the holder cannot receive the full face value if maturity is accelerated. The prospectus supplement relating to any original issue discount securities will describe the particular provisions relating to acceleration of the maturity upon the occurrence of an event of default. In addition, we will describe U.S. federal income tax or other considerations applicable to any debt securities that are denominated in a currency or unit other than U.S. dollars in the prospectus supplement.

**Conversion and Exchange Rights**

The prospectus supplement will describe, if applicable, the terms on which you may convert debt securities into or exchange them for debt securities, preferred stock and common stock or other securities or property. The conversion or exchange may be mandatory or may be at your option. The prospectus supplement will describe how the amount of debt securities, number of shares of preferred stock and common stock or other securities or property to be received upon conversion or exchange would be calculated.

**Subordination of Subordinated Debt Securities**

The indebtedness underlying any subordinated debt securities will be payable only if all payments due under our senior indebtedness, as defined in the applicable indenture and any indenture supplement, including any outstanding senior debt securities, have been made. If we distribute our assets to creditors upon any dissolution, winding-up, liquidation or reorganization or in bankruptcy, insolvency, receivership or similar proceedings, we must first pay all amounts due or to become due on all senior indebtedness before we pay the principal of, or any premium or interest on, the subordinated debt securities. In the event the subordinated debt securities are accelerated because of an event of default, we may not make any payment on the subordinated debt securities until we have paid all senior indebtedness or the acceleration is rescinded. If the payment of subordinated debt securities accelerates because of an event of default, we must promptly notify holders of senior indebtedness of the acceleration.

If we experience a bankruptcy, dissolution or reorganization, holders of senior indebtedness may receive more, ratably, and holders of subordinated debt securities may receive less, ratably, than our other creditors. The indenture for subordinated debt securities may not limit our ability to incur additional senior indebtedness.

**Form, Exchange and Transfer**

We will issue debt securities only in fully registered form, without coupons, and only in denominations of $1,000 and integral multiples thereof, unless the prospectus supplement provides otherwise. The holder of a debt security may elect, subject to the terms of the indentures and the limitations applicable to global securities, to exchange them for other debt securities of the same series of any authorized denomination and of similar terms and aggregate principal amount.

Holders of debt securities may present them for exchange as provided above or for registration of transfer, duly endorsed or with the form of transfer duly executed, at the office of the transfer agent we designate for that purpose. We will not impose a service charge for any registration of transfer or exchange of debt securities, but we may require a payment sufficient to cover any tax or other governmental charge payable in connection with the transfer or exchange. We will name the transfer agent in the prospectus supplement. We may designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, but we must maintain a transfer agent in each place where we will make payment on debt securities.

If we redeem the debt securities, we will not be required to issue, register the transfer of or exchange any debt security during a specified period prior to mailing a notice of redemption. We are not required to register the transfer of or exchange of any debt security selected for redemption, except the unredeemed portion of the debt security being redeemed.

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**Global Securities**

The debt securities may be represented, in whole or in part, by one or more global securities that will have an aggregate principal amount equal to that of all debt securities of that series. Each global security will be registered in the name of a depositary identified in the prospectus supplement. We will deposit the global security with the depositary or a custodian, and the global security will bear a legend regarding the restrictions on exchanges and registration of transfer.

No global security may be exchanged in whole or in part for debt securities registered, and no transfer of a global security in whole or in part may be registered, in the name of any person other than the depositary or any nominee or successor of the depositary unless:

- the depositary is unwilling or unable to continue as depositary; or
- the depositary is no longer in good standing under the Exchange Act or other applicable statute or regulation.

The depositary will determine how all securities issued in exchange for a global security will be registered.

As long as the depositary or its nominee is the registered holder of a global security, we will consider the depositary or the nominee to be the sole owner and holder of the global security and the underlying debt securities. Except as stated above, owners of beneficial interests in a global security will not be entitled to have the global security or any debt security registered in their names, will not receive physical delivery of certificated debt securities and will not be considered to be the owners or holders of the global security or underlying debt securities. We will make all payments of principal, premium and interest on a global security to the depositary or its nominee. The laws of some jurisdictions require that some purchasers of securities take physical delivery of such securities in definitive form. These laws may prevent you from transferring your beneficial interests in a global security.

Only institutions that have accounts with the depositary or its nominee and persons that hold beneficial interests through the depositary or its nominee may own beneficial interests in a global security. The depositary will credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants. Ownership of beneficial interests in a global security will be shown only on, and the transfer of those ownership interests will be effected only through, records maintained by the depositary or any such participant.

The policies and procedures of the depositary may govern payments, transfers, exchanges and other matters relating to beneficial interests in a global security. We and the trustee will assume no responsibility or liability for any aspect of the depositary s or any participant s records relating to, or for payments made on account of, beneficial interests in a global security.

**Payment and Paying Agents**

We will pay principal and any premium or interest on a debt security to the person in whose name the debt security is registered at the close of business on the regular record date for such interest.

We will pay principal and any premium or interest on the debt securities at the office of our designated paying agent. Unless the prospectus supplement indicates otherwise, the corporate trust office of the trustee will be the paying agent for the debt securities.

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Any other paying agents we designate for the debt securities of a particular series will be named in the prospectus supplement. We may designate additional paying agents, rescind the designation of any paying agent or approve a change in the office through which any paying agent acts, but we must maintain a paying agent in each place of payment for the debt securities.

The paying agent will return to us all money we pay to it for the payment of the principal, premium or interest on any debt security that remains unclaimed for a specified period. Thereafter, the holder may look only to us for payment, as an unsecured general creditor.

**Consolidation, Merger and Sale of Assets**

Under the terms of the indentures, so long as any securities remain outstanding, we may not consolidate or enter into a share exchange with or merge into any other person, in a transaction in which we are not the surviving corporation, or sell, convey, transfer or lease our properties and assets substantially as an entirety to any person, unless:

- the successor assumes our obligations under the debt securities and the indentures; and
- we meet the other conditions described in the indentures.

**Events of Default**

Each of the following will constitute an event of default under each indenture:

- failure to pay any interest on any debt security when due, for more than a specified number of days past the due date;
- failure to deposit any sinking fund payment when due;
- failure to perform any covenant or agreement in the indenture that continues for a specified number of days after written notice has been given by the trustee or the holders of a specified percentage in aggregate principal amount of the debt securities of that series;
- events of bankruptcy, insolvency or reorganization; and
- any other event of default specified in the prospectus supplement.

If an event of default occurs and continues, both the trustee and holders of a specified percentage in aggregate principal amount of the outstanding securities of that series may declare the principal amount of the debt securities of that series to be immediately due and payable. The holders of a majority in aggregate principal amount of the outstanding securities of that series may rescind and annul the acceleration if all events of default, other than the nonpayment of accelerated principal, have been cured or waived.

Except for its duties in case of an event of default, the trustee will not be obligated to exercise any of its rights or powers at the request or direction of any of the holders, unless the holders have offered the trustee reasonable indemnity. If they provide this indemnification and subject to conditions specified in the applicable indenture, the holders of a majority in aggregate principal amount of the outstanding securities of any series may direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of a debt security of any series may institute any proceeding with respect to the indentures, or for the appointment of a receiver or a trustee, or for any other remedy, unless:

the holder has previously given the trustee written notice of a continuing event of default;

the holders of a specified percentage in aggregate principal amount of the outstanding securities of that series have made a written request upon the trustee, and have offered reasonable indemnity to the trustee, to institute the proceeding;

the trustee has failed to institute the proceeding for a specified period of time after its receipt of the notification; and

the trustee has not received a direction inconsistent with the request within a specified number of days from the holders of a specified percentage in aggregate principal amount of the outstanding securities of that series.

**Modification and Waiver**

We and the trustee may change an indenture without the consent of any holders with respect to specific matters, including:

to fix any ambiguity, defect or inconsistency in the indenture; and

to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

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In addition, under the indentures, the rights of holders of a series of notes may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, we and the trustee may only make the following changes with the consent of the holder of any outstanding debt securities affected:

- extending the fixed maturity of the series of notes;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or any premium payable upon the redemption, of any debt securities; or
- reducing the percentage of debt securities the holders of which are required to consent to any amendment.

The holders of a majority in principal amount of the outstanding debt securities of any series may waive any past default under the indenture with respect to debt securities of that series, except a default in the payment of principal, premium or interest on any debt security of that series or in respect of a covenant or provision of the indenture that cannot be amended without each holder s consent.

Except in limited circumstances, we may set any day as a record date for the purpose of determining the holders of outstanding debt securities of any series entitled to give or take any direction, notice, consent, waiver or other action under the indentures. In limited circumstances, the trustee may set a record date. To be effective, the action must be taken by holders of the requisite principal amount of such debt securities within a specified period following the record date.

**Defeasance**

To the extent stated in the prospectus supplement, we may elect to apply the provisions in the indentures relating to defeasance and discharge of indebtedness, or to defeasance of restrictive covenants, to the debt securities of any series. The indentures provide that, upon satisfaction of the requirements described below, we may terminate all of our obligations under the debt securities of any series and the applicable indenture, known as legal defeasance, other than our obligation:

- to maintain a registrar and paying agents and hold monies for payment in trust;
- to register the transfer or exchange of the notes; and
- to replace mutilated, destroyed, lost or stolen notes.

In addition, we may terminate our obligation to comply with any restrictive covenants under the debt securities of any series or the applicable indenture, known as covenant defeasance.

We may exercise our legal defeasance option even if we have previously exercised our covenant defeasance option. If we exercise either defeasance option, payment of the notes may not be accelerated because of the occurrence of events of default.

To exercise either defeasance option as to debt securities of any series, we must irrevocably deposit in trust with the trustee money and/or obligations backed by the full faith and credit of the United States that will provide money in an amount sufficient in the written opinion of a nationally recognized firm of independent public accountants to pay the principal of, premium, if any, and each installment of interest on the debt securities. We may only establish this trust if, among other things:

- no event of default shall have occurred or be continuing;

in the case of legal defeasance, we have delivered to the trustee an opinion of counsel to the effect that we have received from, or there has been published by, the Internal Revenue Service a ruling or there has been a change in law, which in the opinion of our counsel, provides that holders of the debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred;

in the case of covenant defeasance, we have delivered to the trustee an opinion of counsel to the effect that the holders of the debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred; and

we satisfy other customary conditions precedent described in the applicable indenture.

**Notices**

We will mail notices to holders of debt securities as indicated in the prospectus supplement.

**Title**

We may treat the person in whose name a debt security is registered as the absolute owner, whether or not such debt security may be overdue, for the purpose of making payment and for all other purposes.

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**Governing Law**

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York.

## DESCRIPTION OF COMMON STOCK

The following description of our common stock, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the common stock that we may offer under this prospectus. For the complete terms of our common stock, please refer to our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws that are filed as exhibits to our reports incorporated by reference into the registration statement that includes this prospectus. The General Corporation Law of Delaware may also affect the terms of our common stock.

**Authorized and Outstanding Common Stock**

Our Amended and Restated Certificate of Incorporation provides that we have authority to issue 500,000,000 shares of our common stock, par value $0.0001 per share. As of June 22, 2011, there were 95,251,861 shares of common stock issued, 95,237,656 shares of common stock outstanding, and there were outstanding options and warrants to purchase approximately an additional 16,838,937 shares of our common stock.

**Listing**

Our common stock is listed on the NYSE Amex under the symbol RNN.

**Dividends**

Our Board of Directors may authorize, and we may make, distributions to our common stockholders, subject to any restriction in our Amended and Restated Certificate of Incorporation and to those limitations prescribed by law. However, we have never paid cash dividends on our common stock or any other securities. We anticipate that we will retain all of our future earnings, if any, for use in the expansion and operation of our business and do not anticipate paying cash dividends in the foreseeable future.

**Fully Paid and Non-Assessable**

All shares of our outstanding common stock are fully paid and non-assessable.

**Voting Rights**

Each share of our common stock is entitled to one vote in each matter submitted to a vote at a meeting of stockholders including in all elections for directors; stockholders are not entitled to cumulative voting in the election for directors. Our stockholders may vote either in person or by proxy.

**Preemptive and Other Rights**

Holders of our common stock have no preemptive rights and have no other rights to subscribe for additional securities of our company under Delaware law. Our common stockholders do not have any conversion rights or rights of redemption (or, if any such rights have been granted in relation to the common stock, any such rights have been waived). Upon liquidation, all holders of our common stock are entitled to participate pro rata in our assets available for distribution, subject to the rights of any class of preferred stock then outstanding.

**Stockholder Action by Written Consent; Meetings**

Pursuant to our Amended and Restated Certificate of Incorporation, stockholders may take action by written consent in lieu of voting at a meeting.

Our Amended and Restated Bylaws provide that we must hold an annual meeting of stockholders. Special meetings of our stockholders may be called at any time only by the Board of Directors or by the Chairman of the Board.

**Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is Olde Monmouth Stock Transfer Company Incorporated.

**Limitations of Director Liability**

Delaware law authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breach of directors fiduciary duty of care. Although Delaware law does not change directors duty of care, it enables corporations to limit available relief to equitable remedies such as injunction or rescission. Our Amended and Restated Bylaws in effect limit the liability of our directors to us and our stockholders to the full extent permitted by Delaware law. Specifically, directors are not personally liable for monetary damages to us or our stockholders for breach of the director s fiduciary duty as a director, except for liability for:

any breach of the director s duty of loyalty to us or our stockholders;

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acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

unlawful payments of dividends or unlawful stock repurchases or redemptions; and

any transaction from which the director derived an improper personal benefit.

**Indemnification**

Our Amended and Restated Bylaws provides for mandatory indemnification of directors and officers against any expense, liability or loss to which they may become subject, or which they may incur as a result of being or having been a director or officer, in effect to the maximum extent permitted by law. Our Amended and Restated Bylaws in addition require us to advance or reimburse directors and officers for expenses they incur in connection with indemnifiable claims. We also maintain directors and officers liability insurance.

## DESCRIPTION OF PREFERRED STOCK

The following description of our preferred stock, together with the additional information we include in any prospectus supplements, summarizes the material terms and provisions of the preferred stock that we may offer under this prospectus. For the complete terms of our preferred stock, please refer to our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws that are filed as exhibits to our reports incorporated by reference into the registration statement that includes this prospectus. The General Corporation Law of Delaware may also affect the terms of our common stock.

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**Preferred Stock That We May Offer and Sell to You**

Our Amended and Restated Certificate of Incorporation authorizes our Board of Directors, without further stockholder action, to provide for the issuance of up to 100,000,000 shares of preferred stock, in one or more classes or series and to fix the rights, preferences, privileges, and restrictions thereof, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series of the designation of such series, without further vote or action by the stockholders. We may amend from time to time our restated Certificate to increase the number of authorized shares of preferred stock. Any such amendment would require the approval of the holders of a majority of the voting power of all of the shares of capital stock entitled to vote for directors, without a vote of the holders of preferred stock or any series thereof unless any such holder is entitled to vote for directors or a vote of any such holder is otherwise required pursuant to the restated certificate or certificates of designations establishing a series of preferred stock. As of the date of this prospectus, no shares of preferred stock are outstanding.

The particular terms of any series of preferred stock being offered by us under this shelf registration statement will be described in the prospectus supplement relating to that series of preferred stock.

Those terms may include:

- the title and liquidation preference per share of the preferred stock and the number of shares offered;
- the purchase price of the preferred stock;
- the dividend rate (or method of calculation), the dates on which dividends will be paid and the date from which dividends will begin to accumulate;
- any redemption or sinking fund provisions of the preferred stock;
- any conversion provisions of the preferred stock;
- the voting rights, if any, of the preferred stock; and
- any additional dividend, liquidation, redemption, sinking fund and other rights, preferences, privileges, limitations and restrictions of the preferred stock.

The preferred stock will, when issued, be fully paid and non-assessable.

The description of preferred stock above and the description of the terms of a particular series of preferred stock in the prospectus supplement are not complete. You should refer to the applicable certificate of designations for complete information. The prospectus supplement will also contain a description of U.S. federal income tax consequences relating to the preferred stock, if material.

**Voting Rights**

The General Corporation Law of Delaware provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes in the rights of holders of that preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designations.

**Other**

Our issuance of preferred stock may have the effect of delaying or preventing a change in control. Our issuance of preferred stock could decrease the amount of earnings and assets available for distribution to the holders of common stock or other preferred stock or could adversely affect the rights and powers, including voting rights, of the holders of common stock or other preferred stock. The issuance of preferred stock could have the effect of decreasing the market price of our common stock.

**Transfer Agent and Registrar**

The transfer agent and registrar for the preferred stock will be set forth in the applicable prospectus supplement.

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## DESCRIPTION OF WARRANTS

**Outstanding Warrants**

As of June 22, 2011, warrants to purchase 8,676,142 shares of common stock were outstanding, having exercise prices ranging from $1.00 to $1.90 and expiration dates from August 8, 2013 to September 30, 2016. These warrants contain a provision for net cash settlement in the event that there is a fundamental transaction (contractually defined as a merger, sale of substantially all assets, tender offer, or share exchange). If a fundamental transaction occurs in which the consideration issued consists of stock in a non-public company, then the warrant holder has the option to receive cash, equal to the fair value of the remaining unexercised portion of the warrant. To the extent a warrant holder exercises a warrant for common stock, shares of common stock registered under this Registration Statement will be issued to the warrant holder. For a description of our common stock, see the section Description of Common Stock.

**General**

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement.

**Equity Warrants**

We may issue warrants for the purchase of shares of our common stock or preferred stock. Warrants may be issued independently or together with the shares of common stock or preferred stock offered by any prospectus supplement to this prospectus and may be attached to or separate from such shares. Further terms of the warrants will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement will describe the terms of the warrants in respect of which this prospectus is being delivered, including, where applicable, the following:

- the title of such warrants;
- the aggregate number of such warrants;
- the price or prices at which such warrants will be issued;
- the designation, terms and number of shares of common stock or preferred stock purchasable upon exercise of such warrants;
- the designation and terms of the shares of common stock or preferred stock with which such warrants are issued and the number of such warrants issued with such shares;
- the date on and after which such warrants and the related common stock or preferred stock will be separately transferable, including any limitations on ownership and transfer of such warrants;
- the price at which each share of common stock or preferred stock purchasable upon exercise of such warrants may be purchased;

the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;

the minimum or maximum amount of such warrants that may be exercised at anyone time;

information with respect to book-entry procedures, if any;

a discussion of certain federal income tax consequences; and

any other terms of such warrants, including terms, procedures and limitations relating to the exchange and exercise of such warrants.

**Debt Warrants**

The applicable prospectus supplement will describe the terms of debt warrants offered, the warrant agreement relating to the debt warrants and the debt warrant certificates representing the debt warrants, including the following:

the title of the debt warrants;

the aggregate number of the debt warrants;

the price or prices at which the debt warrants will be issued;

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the designation, aggregate principal amount and terms of the debt securities purchasable upon exercise of the debt warrants, and the procedures and conditions relating to the exercise of the debt warrants;

the designation and terms of any related debt securities with which the debt warrants are issued, and the number of the debt warrants issued with each debt security;

the principal amount of debt securities purchasable upon exercise of each debt warrant;

the date on which the right to exercise the debt warrants will commence, and the date on which this right will expire;

the maximum or minimum number of debt warrants which may be exercised at any time;

a discussion of any material federal income tax considerations; and

any other terms of the debt warrants and terms, procedures and limitations relating to the exercise of debt warrants.

Debt warrant certificates will be exchangeable for new debt warrant certificates of different denominations, and debt warrants may be exercised at the corporate trust office of the warrant agent or any other office indicated in the prospectus supplement. Prior to the exercise of their debt warrants, holders of debt warrants will not have any of the rights of holders of the debt securities purchasable upon exercise and will not be entitled to payment of principal of or any premium, if any, or interest on the debt securities purchasable upon exercise.

This summary of the warrants is not complete. We urge you to read the warrants filed as exhibits to the registration statement that includes this prospectus and the description of the additional terms of the warrants included in the prospectus supplement.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

**Exercise of Warrants**

Each warrant will entitle the holder thereof to purchase for cash the amount of debt securities, the number of shares of preferred stock and the number of shares of common stock at the exercise price as shall in each case be set forth in, or be determinable as set forth in, the applicable prospectus supplement. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Warrants may be exercised as set forth in the applicable prospectus supplement relating to the warrants offered thereby. Upon receipt of payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent, if any, or any other office indicated in the applicable prospectus supplement, we will, as soon as practicable, forward the purchased securities. If less than all of the warrants represented by the warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants. Holders of warrants will be required to pay any tax or governmental charge that may be imposed in connection with transferring the underlying securities in connection with the exercise of the warrants.

## D ESCRIPTION OF UNITS

The following briefly describes the general terms and provisions of the units that we may offer. We may issue units comprising one or more of the securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit also is the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately at any time or at any time before a specified date.

The applicable prospectus supplement will specify the following terms of any units in respect of which this prospectus is being delivered:

- the terms of the units and of any of the common stock, preferred stock and warrants comprising the units, including whether and under what circumstances the units may be traded separately;
- a description of the terms of any unit agreement governing the units;
- a description of the provisions for the payment, settlement, transfer or exchange of the units or the securities comprising those units; and
- whether the units will be issued fully registered or in global form.

The description in the applicable prospectus supplement and other offering material of any units we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable unit agreement, which will be filed with the SEC if we offer units. For more information on how you can obtain copies of the applicable unit agreement if we offer units, see Where You Can Find More Information. We urge you to read the applicable unit agreement and the applicable prospectus supplement and any other offering material in their entirety.

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## CERTAIN PROVISIONS OF DELAWARE LAW AND OF THE COMPANY S CERTIFICATE OF INCORPORATION AND BYLAWS

*The following paragraphs summarize certain provisions of the Delaware General Corporation Law and our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws. The summary does not purport to be complete and is subject to and qualified in its entirety by reference to the Delaware General Corporation Law and to our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, copies of which are exhibits to the registration statement of which this prospectus is a part. See Where You Can Find More Information.*

**Section 203 of the Delaware General Corporation Law**

We are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. This law prohibits a publicly-held Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned by persons who are directors and also officers and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of our assets involving the interested stockholder;
- in general, any transaction that results in the issuance or transfer by us of any of our stock to the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

**Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws**

Some provisions of Delaware law and our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could make the following transactions more difficult:

acquisition of us by means of a tender offer;

acquisition of us by means of a proxy contest or otherwise; or

removal of our incumbent officers and directors.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids and to promote stability in our management. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors.

Undesignated Preferred Stock. The ability to authorize undesignated preferred stock makes it possible for our board of directors to issue one or more series of preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of our company. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

Requirements for Advance Notification of Stockholder Nominations and Proposals. Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

Amendment of Bylaws. Our Board of Directors is expressly authorized to make, alter, amend, and repeal the bylaws of the Corporation, in any manner not inconsistent with the laws of the State of Delaware, subject to the power of the holders of the Capital Stock to amend or repeal the bylaws made by the Board of Directors.

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Special Vote for Business Combinations. Our amended and restated certificate of incorporation requires that a Business Combination shall not be consummated without the affirmative vote of the holders of at least a majority of the voting power of the then outstanding shares of the Voting Stock not beneficially owned by any Interested Stockholders or any Affiliate or Associate of any Interested Stockholder, voting together as a single class.

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## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information that we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of the prospectus. These documents may include periodic reports, such as Annual Reports on Form 10K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as Proxy Statements. Any documents that we subsequently file with the SEC will automatically update and replace the information previously filed with the SEC. Thus, for example, in the case of a conflict or inconsistency between information set forth in this prospectus and information incorporated by reference into this prospectus, you should rely on the information contained in the document that was filed later.

This prospectus incorporates by reference the documents listed below that we previously have filed with the SEC and any additional documents that we may file with the SEC (File No. 000-50590) under Sections 13(a), l3(c), 14 or 15(d) of the Exchange Act between the date of this prospectus and the termination of the offering of the securities. These documents contain important information about us.

Our Annual Report on Form 10- K for the year ended December 31, 2010, as amended;

Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2011;

Our Current Reports on Form 8-K filed with the SEC on January 20, March 7, March 16, and March 30, 2011;

Our Proxy Statement on Schedule 14A filed with the SEC on April 26, 2011;

All documents filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before the termination of the offering; and

The description of our common stock contained in our Registration Statement on Form 8-A filed under the Exchange Act on May 23, 2008, including any amendment or report filed for the purpose of updating such description.

We are not, however, incorporating by reference any documents, or portions of documents, that are not deemed filed with the SEC.

You can obtain a copy of any or all of the documents incorporated by reference in this prospectus (other than an exhibit to a document unless that exhibit is specifically incorporated by reference into that document) from the SEC on its web site at http://www.sec.gov. You also can obtain these documents from us without charge by visiting our internet web site http://www.rexahn.com or by requesting them in writing, by email or by telephone at the following address:

Tae Heum (Ted) Jeong

Senior Vice President & Chief Financial Officer

Rexahn Pharmaceuticals, Inc.

15245 Shady Grove Road, Suite 455

Rockville, Maryland 20850

(240) 268-5300

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement under the Securities Act that registers the distribution of the securities offered under this prospectus. The registration statement, including the attached exhibits and schedules and the information incorporated by reference, contains additional relevant information about the securities and us. The rules and regulations of the SEC allow us to omit from this prospectus certain information included in the registration statement.

In addition, we file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy this information and the registration statement at the SEC public reference room located at 100 F Street, N.E., Washington D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room.

In addition, the SEC maintains an internet web site that contains reports, proxy statements and other information about issuers of securities, like us, who file such material electronically with the SEC. The address of that web site is http://www.sec.gov. We also maintain a web site at http://www.rexahn.com, which provides additional information about our company. The contents of our website, however, are not a part of this prospectus.

## LEGAL MATTERS

Patton Boggs LLP, Washington, DC, will provide us an opinion as to certain legal matters in connection with the securities offered hereby. As of the date of this prospectus, certain members of Patton Boggs LLP held 60,000 vested and 140,000 unvested options to acquire shares of our common stock.

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## EXPERTS

The financial statements of Rexahn Pharmaceuticals, Inc. appearing in the Annual Report on Form 10-K, as amended, as of December 31, 2010 and 2009, and the related statements of operations, stockholders equity and comprehensive loss, and cash flows for each of the two years in the period ended December 31, 2010 and the amounts in the cumulative from March 19, 2001 (inception) to December 31, 2010 column in the statements of operations and cash flows have been audited by ParenteBeard LLC, an independent registered public accounting firm, as set forth in their reports thereon included therein, and the effectiveness of our internal control over financial reports as of December 31, 2010, and incorporated herein by reference. Such financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

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**19,130,435 SHARES OF COMMON STOCK**

**WARRANTS TO PURCHASE 10,521,739 SHARES OF COMMON STOCK**

**PROSPECTUS SUPPLEMENT**

**Maxim Group LLC** **Burrill LLC**

**November 29, 2012**