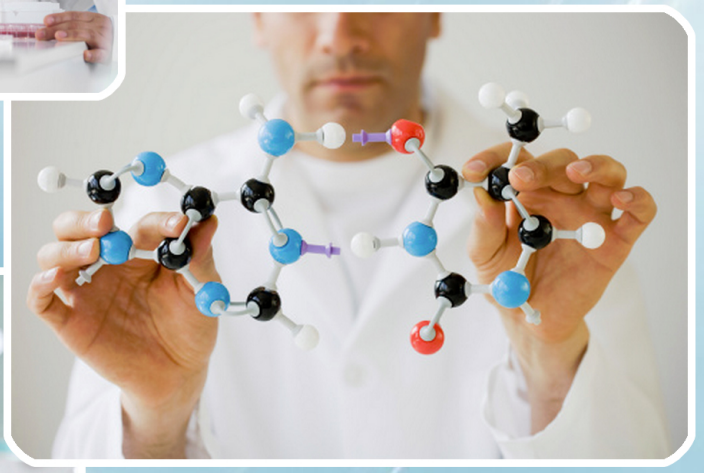
2012 Annual Report

Revolutionizing the Treatment of Cancer



rexahn PHARMACEUTICALS

Pipeline Overview:

Rexahn's portfolio of potential drugs addresses a spectrum of cancers that afflict millions of people worldwide. These compounds are unique in that they target cancer specific mechanisms which are not present in healthy non-cancerous tissue.

Today, our clinical development pipeline consists of three novel compounds:

Archexin® (Phase IIa) a best-in-class compound that blocks both the activated and native forms of Akt1 and has FDA orphan drug designation for the treatment of pancreatic cancer, ovarian cancer, stomach cancer, RCC, and glioblastoma.

RX-3117 (Phase I) a best-in-class inhibitor of DNA synthesis under co-development with Teva Pharmaceutical that exhibits high bioavailability and may have a superior safety profile compared to gemcitabine, the current first-line therapy for pancreatic and other cancers.

RX-5902 (Phase I) 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.

The most clinically-advanced compound in our oncology portfolio is Archexin®, a novel best-in-class Akt1 inhibitor with FDA orphan designation in the treatment of cancers in various solid tumors, including pancreatic and ovarian cancer. Archexin specifically blocks the production of Akt1, a molecule that plays a central role in the uncontrolled growth of tumor mass. By inhibiting active and native Akt1 production Archexin promises to deliver better efficacy and safety. Because the activated form of Akt1 is present only in cancer cells, the overall safety profile of Archexin may be superior to existing cytotoxic compounds which affect growth in both cancer and non-cancer cells. Rexahn will be conducting two additional Phase IIa clinical trials beginning in the second half of 2013. The first clinical trial will be conducted in patients with solid tumors that have become resistant to existing cytotoxic compounds and the second clinical trial will be conducted in patients with a hematological malignancy.

Another exciting compound is RX-3117, a best-in-class cytotoxic antimetabolite nucleoside compound, which is being co-developed with Teva Pharmaceutical Industries. In vitro and in vivo studies have demonstrated RX-3117 to have:

- Potent in vitro inhibition of proliferation of many solid tumor types.
- Potent in vitro anti-proliferation effects on gemcitabine drug-resistant cancer cells.

- Significant in vivo anti-tumor activity in mouse colon xenograft models, including colon and lung cancer cells.

RX-3117 has completed an exploratory clinical trial in patients for oral bioavailability, safety and PK. IND filing and a Phase I clinical trial is scheduled in the second half of 2013.

Another very promising compound is RX-5902, a first-in-class inhibitor of p68 RNA helicase. Phosphorylated-p68 RNA helicase plays a critical role in transcription and translation and helicase activity. Over-expression of phosphorylated-p68 has been observed in solid tumors, such as colon, breast, head and neck squamous cell carcinomas, prostate and ovarian cancers and multiple myeloma. However, phosphorylated-p68 is not present in healthy (non-cancerous) tissue. Phosphorylated-p68 RNA helicase plays an important role in tumor progressions, metastasis and prognosis.

Rexahn is developing RX-5902 to be an orally administered first-in-class p68 RNA helicase inhibitor with great potential to be effective against solid tumors.

Rexahn has filed the IND for RX-5902 and will be initiating a Phase I clinical trial in the second quarter of 2013.

Rexahn's extended portfolio of pre-clinical oncology drug candidates includes:

RX-0201-Nano: Nanoliposomal anticancer Akt1 inhibitor

RX-0201, the active ingredient of Archexin®, is a best-in-class, potent inhibitor of the Akt1 protein kinase. RX-0201-Nano is a nanoliposomal product of RX-0201 with high incorporation efficiency and good stability. Nanoliposomal delivery of RX-0201 may provide significant clinical benefits including targeted higher cellular uptake, extended circulation time, reduced drug-related toxicity, and improved efficacy.

RX-0047-Nano: Nanoliposomal anticancer HIF-1α inhibitor

RX-0047 is a potent inhibitor of HIF-1α, a key transcription factor involved in cancer cell survival, metastasis, and angiogenesis. Studies in xenografted models have shown RX-0047 to inhibit tumor growth in lung and prostate and blocks metastasis. RX-0047-Nano is a nanoliposomal product of RX-0047 with high incorporation and good stability.

RX-21101: Nano-polymer Anticancer Drug

RX-21101(HPMA-docetaxel) is an anticancer drug that can overcome the downside of cytotoxic compounds, such as poor solubility, stability, and severe adverse reactions. Conjugating water-soluble and non-toxic HPMA to conventional anticancer compounds bolsters efficacy while lowering toxicity.

Chairman Letter:

Dear fellow stockholder:

In 2012 we fully transitioned Rexahn into a cancer focused biopharmaceutical company, a therapeutic area where we have strong expertise and a promising pipeline. We believe that by directing our resources to the company's differentiated pre-clinical and clinical-stage oncology assets, we can drive significant long-term value for shareholders.

To successfully lead Rexahn on its new path, we recruited Dr. Peter Suzdak to be the company's Chief Executive Officer. Peter is a first-rate clinical development expert who will help us to fully unlock the value of our oncology pipeline.

I am pleased to report that we are accomplishing our oncology development goals.

This past August, we reported positive top-line phase IIa clinical study results for Archexin in patients with advanced pancreatic cancer. Archexin is being developed as a potential best-in-class inhibitor of the Akt1 protein kinase in cancer cells. Rexahn conducted an open label study to determine the safety and efficacy of Archexin in combination with gemcitabine. This study demonstrated that the combination treatment provided a median survival of 9.1 months compared to historical data for standard single agent gemcitabine therapy of 5.7 months.

We also concluded the first-in-human clinical study of RX-3117 with our co-development partner, Teva Pharmaceutical Industries, Ltd. The study successfully met its primary objective of determining the drug's oral bioavailability in humans. It also enhanced RX-3117 position as a potential future alternative to market leading anti-metabolite therapies in treatment of solid tumors in the colon, lung, bladder and pancreas.

We are excited about RX-5902, our first-in-class p68 RNA Helicase Inhibitor. Rexahn submitted an IND application to the FDA for RX-5902 to begin testing this drug's potent anti-tumor activity in cancer patients. RX-5902 is unique because it is a broad anti-cancer agent that specifically targets the p68 protein that is over-expressed in cancer cells. Our pre-clinical studies have shown that RX-5902 is also effective in drug-resistant cancer cells and can be applied as a cocktail with other current cancer drugs.

Rexahn also improved its financial position in 2012. The Company raised $7.3 million in a public offering and saw Teva Pharmaceutical Industries increase its ownership in the Company to 6.3 percent.

Rexahn has worked hard to align its operations, strategy and goals over the past year. The decisions made, and steps taken, have positioned the Company to develop cancer therapeutics with best-in-class or market-leader potential.

On behalf of the Board of Directors and our employees, I would like to thank you for your continued support.

Sincerely,

Chang H. Ahn, Ph.D.
Chairman

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended **December 31, 2012**

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF

THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File No.:001-34079

Rexahn Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**11-3516358**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification Number)*

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

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

Securities registered pursuant to Section 12(b) of the Exchange Act:

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock, $0.0001 par value per share	**NYSE AMEX**

Securities registered pursuant to Section 12(g) of the Exchange Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined by Rule-405 of the Securities Act Yes ☐ No☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities

Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of "accelerated filer," "large accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer	☐	Accelerated Filer	☐
Non-Accelerated Filer	☐	Smaller reporting company	☑
(Do not check if a smaller reporting company)			

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes ☐ No ☑

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter: **As of June 30, 2012, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was $24,426,818 based on the closing price reported on NYSE Amex.**

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

Class	Outstanding as of March 22, 2013
Common Stock, $0.0001 par value per share	119,428,989 shares

DOCUMENTS INCORPORATED BY REFERENCE

Document	Parts Into Which Incorporated
Portions of the registrant's Proxy Statement for the Annual Meeting of Stockholders to be held on June 10, 2013	Part III

Cautionary Statement Regarding Forward-Looking Statements. This Annual Report on Form 10-K contains statements (including certain projections and business trends) accompanied by such phrases as "believe," "estimate," "expect," "anticipate," "will," "intend" and other similar expressions, that are "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995. We caution that forward-looking statements are based largely on our expectations, and are subject to a number of known and unknown risks and uncertainties that are subject to change based on factors which are, in many instances, beyond our control. Actual results, performance or achievements may differ materially from those contemplated, expressed, or implied by the forward-looking statements.

The following factors, among others, could cause our financial performance to differ materially from that expressed in such forward-looking statements:

- 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 Securities and Exchange Commission.

These forward-looking statements are made only as of the date hereof, and we undertake no obligation to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise. The safe harbors for forward-looking statements provided by the Private Securities Litigation Reform Act are unavailable to issuers of "penny stock." Our shares may be considered a penny stock and, as a result, the safe harbors may not be available to us.

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
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PART I

Item 1. Description of Business

Any references to "we," "us," "our," the "Company" or "Rexahn" shall mean Rexahn Pharmaceuticals, Inc.

We are a development stage biopharmaceutical company focusing on the development of novel treatments for cancer to patients worldwide. Our mission is to discover and develop new medicines for diseases that plague patients with no effective therapies, particularly high mortality cancers. Our pipeline features one drug candidate in Phase II clinical trials, two oncology candidates which may begin Phase I in the next twelve months, 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 central nervous system ("CNS") candidates, Serdaxin and Zoraxel, that are in Phase II clinical development and we are exploring various options to fund the further development of these two compounds. For a description of our pipeline drug candidates, see "Our Pipeline Drug Candidates" in this Item 1.

Our principal corporate office is located at 15245 Shady Grove Road, Suite 455, Rockville, Maryland 20850 in Maryland's I-270 technology corridor. Our telephone number is (240) 268-5300.

Rexahn currently has three clinical stage oncology candidates. The first candidate, Archexin, is an inhibitor of the protein kinase Akt-1. Akt-1 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 ("FDA") for five cancer indications (renal cell carcinoma ("RCC"), glioblastoma, ovarian cancer, stomach cancer and pancreatic cancer). The FDA orphan drug program enables expedited FDA review or approval process, seven years of marketing exclusivity after approval and tax incentives for clinical research. Archexin has completed a Phase IIa clinical trial for the treatment of pancreatic cancer and we are expected to expand our Phase II program by initiating Phase IIa clinical trials for chemo-resistant solid tumors and hematological malignancies in the second half of 2013.

Another clinical stage candidate is RX-3117, which 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. RX-3117 completed an exploratory Phase I clinical study in 2012 that demonstrated the oral bioavailability of RX-3117 in humans with no adverse effects reported in the study. We anticipate that RX-3117 may enter Phase I clinical trials in 2013. Rexahn has a partnership with Teva Pharmaceuticals Industries, Limited ("Teva") for the development of RX-3117.

RX-5902 is another clinical stage oncology candidate that is a first-in-class small molecule that inhibits the phosphorylation of p68 RNA helicase, a protein that plays a key role in cancer growth, progression, and metastasis. In July, 2012 Rexahn submitted an Investigational New Drug ("IND") Application to the FDA for RX-5902. 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." RX-5902 may enter Phase I clinical trials in the first half of 2013.

Serdaxin is a developmental stage drug candidate for major depressive disorder ("MDD"). Rexahn completed a 300 patient Phase IIb clinical trial of Serdaxin in MDD in 2011. On November 4, 2011, we released the results of the clinical trial which showed Serdaxin did not demonstrate efficacy compared to a placebo group as measured by the Montgomery-Asberg Depression Rating Scale ("MADRS"). At this point, we are currently not allocating resources to further develop Serdaxin to treat MDD and are looking for partners who will fund the clinical development of Serdaxin.

Zoraxel is a developmental stage drug for sexual dysfunction that directly modulates the sexual activity control center in the brain. The Phase IIa study was completed in May 2009 with positive results for patients for erectile dysfunction ("ED"). Zoraxel is an immediate release formulation of clavulanic acid, the same active ingredient found in Serdaxin. Given the reported results of the Serdaxin Phase IIb clinical trial, we are looking for partners who will fund the clinical development of Zoraxel.

Company Background

Our Company resulted from a merger of Corporate Road Show.Com Inc., originally a New York corporation ("CPRD") which was formed in November 1999, and Rexahn, Corp, a Maryland corporation immediately after giving effect to a 1-for-100 reverse stock split and the reincorporation of CPRD as a Delaware corporation under the name "Rexahn Pharmaceuticals, Inc." with Rexahn, Corp surviving as a wholly owned operating subsidiary of ours (the "Merger"). The Merger was effective as of May 13, 2005. On September 29, 2005, Rexahn, Corp merged with and into us, and Rexahn, Corp's separate existence was terminated.

Rexahn, Corp was founded in March 2001 and began as a biopharmaceutical company focusing on oncology drugs. Dr. Chang Ahn, our founding CEO and Chairman of the Board of Directors, is a former FDA reviewer, and NCI research scientist, helped guide initial research and commercialization efforts in targeted cancer drugs. In February of this year, Dr. Peter Suzdak, was hired by Rexahn to become CEO. Dr. Suzdak has extensive experience in drug development and developing therapies for various diseases, including cancer and other disorders.

Industry and Disease Markets

Market Overview

Our primary research and development focuses on therapeutic for treating cancer. Our strategy is to develop innovative drugs that alter the signaling pathways implicated in these diseases, and thereby help patients regain an improved quality of life.

According to the Center for Disease Control and Prevention, cancer claims the lives of more than half a million Americans each year and is the second leading cause of death among Americans. In 2010, the NCI estimated that the overall cost of cancer was $264 billion and approximately 1.7 million new cancer cases are estimated in 2013.[1] Global sales of cancer drugs are predicted to grow to $70 billion by 2018 in the seven major markets, driven mainly by commercialization of molecular targeted therapies.[2]

Current Cancer Treatments

The life-threatening nature of cancer, and the various ways of trying to treat cancer to save lives, has led to treatment(s) with surgery, radiation therapy, and chemotherapy. Surgery is widely used to treat cancer; however, there may be related or significant complications and surgery may be ineffective if metastasis has occurred. Radiation therapy, or radiotherapy, can be highly effective. Ionizing radiation deposits energy that injures or destroys cells in the area being treated by damaging their genetic material, making it impossible for these cells to continue to grow. Although radiation damages both cancer cells and normal cells, the normal cells are generally able to repair themselves and function properly. Cytotoxic cancer drugs destroy cancer cells by interfering with various stages of the cell division process. However, many current cytotoxic chemotherapy drugs have limited efficacy and debilitating adverse side effects and may result in the development of multi-drug resistance.

1. Cancer Facts and Figures 2013 (American Cancer Society)
2. Cancer Market and Definition Overview, 2009 (Datamonitor).

Unmet Needs in Cancer

Despite significant advances in cancer research and treatments, high unmet needs still remain including:

- **Long-term management of cancers:** Surgery, chemotherapy or radiation therapy may not result in long-term remission, though surgery and radiation therapies are considered effective methods for some cancers. Therefore, there is a need for more effective drugs and adjuvant therapies to treat relapsed and refractory cancers.

- **Multi-drug resistance:** Multi-drug resistance is a major obstacle in effectively treating various cancers.

- **Debilitating toxicity by chemotherapy:** Chemotherapy as a mainstay of cancer treatment induces severe adverse reactions and toxicities, affecting quality of life or life itself.

Archexin*: *First-in-class Anticancer Akt Inhibitor

Archexin is a first-in-class, potent inhibitor of the Akt protein kinase-1 (Akt) in cancer cells. Archexin has FDA orphan drug designations for five cancers (Renal cell carcinoma, glioblastoma, and cancers of the ovary, stomach and pancreas). Multiple indications for other solid tumors may also be pursued. Archexin is differentiated by its ability to inhibit both activated and inactivated forms of Akt, and to potentially reverse the drug resistance observed with the protein kinase inhibitors. Other targeted drugs may only inhibit inactivated Akt and be vulnerable to development of drug resistance. Akt activation plays a key role in cancer cell proliferation, survival, angiogenesis and drug resistance. Akt is over-activated in many human cancers (e.g., breast, colorectal, gastric, pancreatic, prostate, and melanoma cancers). A method to control the Akt activity involves inhibition of signaling molecules upstream of Akt in cancer cells (e.g., EGFR or VEGFR inhibitors). In this case, only the activity of native Akt is indirectly affected. However, signal transmission for cancer progression and resistance occurs when Akt is activated, thus inhibition of the activated Akt becomes more important. Archexin inhibits both activated and native Akt.

Archexin is an antisense oligonucleotide compound that is complementary to Akt mRNA, and highly selective for inhibiting mRNA expression and leading to reduced production of Akt protein. Archexin has demonstrated excellent safety, tolerability and minimal side effects in a Phase I study in patients with advanced cancers, where Grade 3 fatigue was the only dose-limiting toxicity and no significant hematological abnormalities were observed. The main objectives of the Phase I study were to determine maximum tolerated dose, dose limiting toxicity, and pharmacokinetic parameters for Archexin monotherapy. The Archexin Phase I study design was an open label, single arm ascending dose, safety and tolerability study.

An open label 2-stage Phase IIa study for Archexin 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. The most frequent reported adverse events were constipation, nausea, abdominal pain and pyrexia, regardless of relatedness. Rexahn is evaluating options for advancing Archexin, including initiating Phase IIa clinical trials for chemo-resistant solid tumors and hematological malignancies in the second half of 2013.

The Company has been issued a U.S. patent for Archexin that covers composition of matter and broad claims for the nucleotide sequences of the antisense compounds that target and inhibit the expression of Akt in human tissues or cells, and the method of using the compounds to induce cytotoxicity in cancer cells.

RX-3117: Small Molecule, New Chemical Entity Nucleoside

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. RX-3117 completed an exploratory Phase I clinical study in 2012 that demonstrated the oral bioavailability of RX-3117 in humans, and there were no adverse effects reported in the study. We anticipate that RX-3117 may enter Phase I clinical trials in 2013.

Rexahn has a partnership with Teva for the development of RX-3117. In 2009, we closed on the Research and Executive License Option ("RELO") and a Purchase Agreement. 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. On January 19, 2011, we entered into a second amendment to the Purchase Agreement, whereby Teva purchased 2,334,515 shares of our common stock for $3.95 million. This second amendment also provided for a possible third investment by Teva, in the amount of $750,000. On December 7, 2012, Teva exercised the third investment option, which constituted the final closing of the Purchase Agreement, and we issued 2,083,333 shares for $750,000. On December 27, 2012 we received $926,000 from Teva pursuant to a second amendment to the RELO for the further development of RX-3117. Pursuant to the RELO, if the IND is filed and RX-3117 further progresses into clinical development, Rexahn will receive milestone payments from Teva.

RX-5902: First In Class p68 RNA Inhibitor

RX-5902 is another oncology candidate that is a first-in-class small molecule that inhibits the phosphorylation of p68 RNA helicase, a protein that plays a key role in cancer growth, progression, and metastasis. Phosphorylated P-68 is highly expressed in cancer cells, but not in normal cells. Phosphorylated p68 results in up-regulation of cancer related genes and a subsequent proliferation or tumor growth of cancer cells. RX-5902 selectively blocks Phosphorylated p68 thereby decreasing the proliferation or growth of cancer cells. In preclinical tissue culture models and in-vivo xenograft models, RX-5902 has demonstrated synergism with cytotoxic agents and activity against drug resistant cancer cells. In July, 2012 Rexahn submitted an Investigational New Drug Application to the FDA for RX-5902. RX-5902 may enter clinical trials in the first half of 2013.

Market Opportunity

There are several factors favorable for commercializing new cancer drugs that may be first-in-class or market leaders, including:

- *Expedited Regulatory or Commercialization Pathways*. Drugs for life-threatening diseases such as cancer are often treated by the FDA as candidates for fast track, priority and accelerated reviews. Expedited regulatory review may lead to clinical studies that require fewer patients, or expedited clinical trials.

- *Favorable Environment for Formulary Access and Reimbursement*. Cancer drugs with proven efficacy or survival benefit, and cost-effective clinical outcomes would be expected to gain rapid market uptake, formulary listing and payer reimbursement. In addition, drugs that have orphan designations are generally reimbursed by insurance companies given that there are few, if any, alternatives.

- *Focus on Specialty Markets*. The marketing of new drugs to specialty physicians can be accomplished with a specialty sales force that requires fewer personnel and lower related costs than a typical sales force that markets to primary care physicians and general practitioners.

Our Strategy

Our strategy has several key components:

Develop innovative therapeutics with the potential to be first-in-class or market leaders

We plan to focus our R&D pipeline on potential first-in-class, or market leading compounds for treatment of cancer. By expanding the breadth and depth of our oncology pipeline, we aim to develop an industry-leading oncology therapeutics franchise. Our pipeline spans the major classes of cancer drugs – molecular targeted therapies, signal transduction and multi-kinase inhibitors, nano-medicines for target delivery of compounds, and small molecule cytotoxic compounds. Differentiated target product profiles and proprietary discovery and research technology platforms further support these strategic efforts.

Target Signal Transduction Molecules with Multiple Drug Candidates

We plan to expand our oncology candidate R&D pipeline and introduce several new signal inhibitor drugs into clinical trials over the next several years. By identifying and characterizing the genes and proteins that control the signaling pathways and gene expression of cancer cells, we seek to develop DNA/RNA-based and small-molecule drugs to treat a broad range of diseases caused by abnormal expression or functions of those genes and proteins.

Establish Partnerships with Large Pharmaceutical Companies

In September 2009, we closed on licensing and stock purchase agreements with Teva for the development of our novel anti-cancer compound, RX-3117. The companies reached an agreement with respect to the commercialization and development of RX-3117. In January, 2011, we closed on an additional private placement with Teva, pursuant to the 2009 stock purchase agreement, which was amended to increase the amount of Teva's investment for the further development of RX-3117 and provided for a possible third investment by Teva. On December 7, 2012, Teva exercised its option and completed a third investment of our common stock and provided additional funding for the development of RX-3117. To date, Teva has invested approximately $9.1 million with Rexahn, and currently owns approximately 6.3% of our outstanding common stock. We seek to establish strategic alliances and partnerships with large pharmaceutical companies for the development of other drug candidates.

Clinically Develop Drug Candidates as Orphan Drugs to Reduce Time-to-Market

Under the Orphan Drug Act, the FDA may expedite approval of new drugs that treat diseases affecting less than 200,000 patients each year. This category of diseases is called an "orphan indication." Incentives in the Orphan Drug Act include a faster time-to-market of the drug (with FDA approval possible after Phase II trials instead of Phase III trials) and seven years of drug marketing exclusivity for the sponsor. We plan to develop drug candidates initially for orphan category cancers in order to reduce the time-to-market.

In-License Unique Technology

We continually review opportunities to in-license and advance compounds in oncology that have value creating potential and will strengthen our clinical development pipeline.

Capitalize on Our Management Team's Expertise for Drug Development and Product Commercialization

Our management team possesses clinical development experience in oncology and several other therapeutic areas that facilitates strategic approaches to and competitive advantages in, the design, risk

assessment, and implementation of drug development programs. We also have prior experience in pharmaceutical alliances, product launches and marketing.

Our Pipeline Drug Candidates

We have three clinical stage drug candidates, and several pre-clinical drugs, consisting of the following:

Clinical Stage Pipeline:

(1) Archexin: First-in-class anticancer Akt inhibitor

(2) RX-3117: Small molecule anticancer DNA synthesis Inhibitor

(3) RX-5902: Small molecule anticancer p68 RNA helicase regulator

Pre-clinical Pipeline:

(1) RX-0201-Nano: Nanoliposomal anticancer Akt inhibitor

(2) RX-0047-Nano: Nanoliposomal anticancer HIF-1 alpha inhibitor

(3) RX-21101: Nano-polymer Anticancer

We have discussed our clinical stage pipeline in detail above.

Pre-clinical Pipeline

Our pre-clinical pipeline includes:

(1) RX-0201-Nano: Nanoliposomal anticancer Akt inhibitor

RX-0201, the active ingredient of Archexin, is a first-in-class, potent inhibitor of the Akt protein kinase. RX-0201-Nano is a nanoliposomal product of RX-0201 with high incorporation efficiency and good stability. Nanoliposomal delivery of RX-0201 may provide significant clinical benefits including targeted higher cellular uptake, extended circulation time, reduced drug-related toxicity, and improved efficacy.

(2) RX-0047-Nano: Nanoliposomal anticancer HIF-1α inhibitor

RX-0047 is a potent inhibitor of HIF-1α, a key transcription factor involved in cancer cell survival, metastasis, and angiogenesis. Studies in xenografted model have shown RX-0047 to inhibit tumor growth in lung and prostate and blocks metastasis. RX-0047-Nano is a nanoliposomal product of RX-0047 with high incorporation and good stability.

(3) RX-21101: Nano-polymer Anticancer Drug

Among the prominent nano-polymer drugs in Rexahn, RX-21101(HPMA-docetaxel) is an anticancer drug that can overcome the downside of cytotoxic compounds, such as poor solubility, stability, and severe adverse reactions. Conjugating water-soluble and non-toxic HPMA to conventional anticancer compounds bolster efficacy while lowering toxicity by specific tumor targeting and increased stability in body.

Competition

We are developing new drugs to address unmet medical needs in oncology. Our drug candidates will be competing with products and therapies that either currently exist or are expected to be developed. Competition among these products will be based on factors such as product efficacy, safety, price, launch timing and execution. Our competitive position will also depend upon our ability to attract and retain qualified personnel, to obtain patent protection or otherwise develop proprietary products or processes, and to secure sufficient capital resources for the often substantial period between technological conception and commercial sales.

There are a number of pharmaceutical and biotechnology companies, as well as academic institutions, government agencies and other public and private research organizations, which are conducting research and development on technologies and products for treatment of cancers.. Our competitors may succeed in developing products based on novel technologies that are more effective than ours, which could render our technology and products noncompetitive prior to recovery by us of expenses incurred with respect to those products. For many of the same reasons described above, we cannot guarantee that we will compete successfully.

Government Regulation

Regulation by governmental authorities in the United States and in other countries constitutes a significant consideration in our product development, manufacturing and marketing strategies. We expect that all of our drug candidates will require regulatory approval by appropriate governmental agencies prior to commercialization and will be subjected to rigorous pre-clinical, clinical, and post-approval testing, as well as to other approval processes by the FDA and by similar health authorities in foreign countries. U.S. federal regulations control the ongoing safety, manufacture, storage, labeling, record keeping, and marketing of all biopharmaceutical products intended for therapeutic purposes. We believe that we are in compliance in all material respects with currently applicable rules and regulations.

Obtaining governmental approvals and maintaining ongoing compliance with federal regulations are expected to require the expenditure of significant financial and human resources not currently at our disposal. We plan to fulfill our short-term needs through consulting agreements and joint ventures with academic or corporate partners while building our own internal infrastructure for long-term corporate growth.

The process by which biopharmaceutical compounds for therapeutic use are approved for commercialization in the United States is lengthy. Many other countries have instituted an equally difficult approval processes. In the United States, regulations published by the FDA require that the person or entity sponsoring and/or conducting a clinical study for the purpose of investigating a potential biological drug product's safety and effectiveness submit an IND application to the FDA. These investigative studies are required for any drug product for which the product manufacturer intends to pursue licensing for marketing the product in interstate commerce. If the FDA does not object to the IND application, clinical testing of the compound may begin in humans after a 30-day review period. Clinical evaluations typically are performed in three phases.

In Phase I, the drug is administered to a small number of healthy human subjects or patients to confirm its safety and to develop detailed profiles of its pharmacological and pharmacokinetic actions (*i.e.*, absorption, metabolism, excretion, duration of therapeutic concentration and effects, if any).

In Phase II, the drug is administered to groups of patients (up to a total of 500) to determine its preliminary efficacy against the targeted disease and the requisite dose and dose intervals. In a typical development program, additional animal toxicology studies precede this phase. In some cases, the trial can be split into Phase IIa and IIb studies in order to test smaller subject pools. Some Phase I clinical studies may also proceed in parallel with some Phase II studies.

In Phase III, the drug is administered to a larger group of patients (usually 1,000 to 3,000 or more) by physicians (study site investigators) in a network of participating clinics and hospitals. The extensive clinical testing is intended to confirm Phase II results and to document the nature and incidence of adverse reactions. Studies also are performed in patients with concomitant diseases and medications. Larger patient populations are evaluated in Phase III at multiple study sites and many clinical trial programs or registration studies are conducted concurrently for the sake of time and efficiency.

After completing the clinical studies, the product developer submits the safety and effectiveness data generated by the studies to the FDA in the form of a New Drug Application (NDA) to market the product. It is the responsibility of the FDA to review the proposed product labeling, the pre-clinical (animal and laboratory) data, the clinical data, the facilities utilized and the methodologies employed in the manufacture of the product to determine whether the product is safe and effective for its intended use.

Even after initial FDA approval has been obtained, further studies may be required to provide additional data on safety or to gain approval for expanded labeling or treatment indications. Also, the FDA may require post-marketing testing and surveillance programs to monitor the drug's effects. Side effects resulting from the use of drug products may prevent or limit the further marketing of the products.

For marketing outside the United States, we will be subject to foreign regulatory requirements governing human clinical trials and marketing approval for drugs. The requirements relating to the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country.

Certain drugs are eligible in the United States for designation by the FDA as "orphan" drugs if their use is intended to treat a disease that affects fewer than 200,000 persons in the U.S. or the disease affects more than 200,000 persons in the United States but there is no reasonable expectation that the cost of developing and marketing a drug will be recovered from the U.S. sales of such drug. In order for a sponsor to obtain orphan designation for a drug product, an application must be submitted for approval to the FDA's Office of Orphan Products Development. The approval of an application for orphan designation is based upon the information submitted by the sponsor. A drug that has obtained orphan designation is said to have "orphan status." The approval of an orphan designation request does not alter the standard regulatory requirements and process for obtaining marketing approval. Safety and efficacy of a compound must be established through adequate and well-controlled studies.

Orphan drugs may obtain FDA approval after successful Phase II trials, rather than after completion of Phase III trials, resulting in faster time-to-market for those drugs. If a sponsor obtains orphan drug designation for a particular compound and is the first to obtain FDA regulatory approval of that compound, then that sponsor is granted marketing exclusivity for a period of seven years.

Sales and Marketing

Rexahn plans to develop unique and differentiated drugs that are first-in-class or potential market leaders. We may develop cancer drugs for orphan indications initially, and then expand into more highly prevalent cancers. Currently, Archexin has Orphan drug designation for five cancer indications. For drugs that require larger pivotal trials and/or large sales force, Rexahn seeks alliances and corporate partnerships with larger pharmaceutical firms.

Research Technologies

Our research technologies are focused on our proprietary multi-target aimed ligands platform and nano-based drug delivery. For a discussion of collaboration arrangements pursuant to which we obtain research and development services from universities, research institutions and other organizations, see "Collaboration and License Agreements" in this item.

The Inhibitors of Multi-Expression Signals (TIMES)

TIMES is Rexahn's unique ligand discovery platform targeting multi-expression signals. Since cancer is a complex disease caused by multiple factors as well as genetic modifications, cancer treatment involves a combination of drugs with different mechanisms of action, which compound degree and extent of toxicities. Rexahn's approach is to control multiple targets important for cancer proliferation with a single agent. In doing so, Rexahn utilizes a proprietary, genomics-based integrated, gene expression system to identify potentially important targets that control multiple genes or signaling events in cancer cells.

3-D Gateway of Ligand Discovery (3-D GOLD)

3D-GOLD is a drug discovery platform that integrates 3-D natures of molecular modeling, databases of chemicals and proteins, and ligand filtering and generation. The chemical database contains 3D structures of about 7 million compounds. Rexahn's proprietary quantitative structure-activity relationship tool for innovative discovery and docking tools are parts of the platform. The filtering module is a powerful component to determine similarity in pharmacophore and 3D fingerprinting, while ligand generation helps optimize the leads.

Nano-medicine Drug Delivery

Rexahn has developed unique proprietary drug delivery nano-systems that may increase the availability of a drug at the disease site, minimize adverse reactions, and/or provide longer duration of action. Rexahn is currently testing multiple nanoliposomal- and nanopolymer-based anticancer drugs.

Manufacturing and Distribution

We do not currently have the resources required for commercial manufacturing of our drug candidates. We currently outsource the manufacturing of drug substances and drug products for our drug candidates. We believe that there are a limited number of manufacturers that could manufacture our drug candidates. We have no current plans to build internal manufacturing capacity for any product. Manufacturing will be accomplished through outsourcing or through partnerships with large pharmaceutical companies. We do not have any specific distribution plans at this time.

Intellectual Property

Proprietary patent and intellectual property (IP) protection for our drug candidates, processes and know-how is important to our business. We aggressively prosecute and defend our patents and proprietary technology. Rexahn has several U.S. and international patents issued for broad IP coverage of our drug candidates in cancer, CNS, behavioral and mood disorders, neuroprotection and sexual dysfunction, effective until 2020 to 2030. In 2012, we were granted two US patents and two foreign patents for our oncology candidates. Additional U.S., Europe, and other foreign patents are pending. We also rely upon trade secrets, know-how, continuing technological innovation and licensing opportunities to develop and maintain our competitive position.

Rexahn owns US patents for its clinical and preclinical candidates related to RX-3117, Archexin, RX-5902, and RX-0047. In addition, Rexahn owns issued patents in multiple foreign countries related to RX-3117, Archexin, RX-0047 and RX-5902. Additional US and/or foreign patent applications related to Archexin, RX-3117, RX-5902, RX-0047, and RX-21101 are pending. There are also issued patents and pending applications in US and foreign countries related to Zoraxel and Serdaxin

In 2012, we were granted two US and two foreign patents. The first US patent was for quinoxalinyl-piperazine compounds, which includes RX-5902, and the second US patent was a continuation patent to cover more isoquinolinamine compounds, a class of potent anti-cancer compounds. The first foreign patent granted was for quinoazoline derivatives in Japan, and the second patent was for novel anticancer isoquinolinamie compounds in Europe. All these patents were oncology patents which provide protection for our oncology candidates and formulations.

In February 2005, we licensed-in CNS-related intellectual property from Revaax Pharmaceuticals, LLC. The intellectual property rights acquired cover use of certain compounds for anxiety, depression, aggression, cognition, Attention Deficit Hyperactivity Disorder, neuroprotection and sexual dysfunction. See "Collaboration and License Arrangements" in this Item for additional information.

Rexahn is the exclusive licensee of all four US and several foreign patents related to Serdaxin. Rexahn is the exclusive licensee of two issued US patents related to Zoraxel. Rexahn is also the exclusive licensee of additional pending US and/or foreign patent applications related to Zoraxel and/or Serdaxin. See "Collaboration and License Arrangements" in this Item for additional information.

Collaboration and License Arrangements

We have numerous collaborative research and development relationships with universities, research institutions and other organizations. A description of these material relationships is below.

Teva Pharmaceutical Industries ("Teva").

In 2009, we closed on a RELO and a Securities Purchase Agreement ("Purchase Agreement") with 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. These agreements provide for the commercialization and development of RX-3117. Pursuant to the Purchase Agreement, Teva purchased 3,102,837 shares of our common stock for $3.5 million. 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. On January 19, 2011, we entered into a second amendment to the Purchase Agreement, where Teva purchased 2,334,515 shares of our common stock for $3.95 million. This second amendment also provided for a possible third investment by Teva, in the amount of $750,000. On December 7, 2012, Teva exercised this option, which constituted the third and final closing of the Purchase Agreement, and we issued 2,083,333 shares for $750,000. On December 27, 2012, we received $926,000 from Teva pursuant to a second amendment to the RELO for the further development of RX-3117.

Korea Research Institute of Chemical Technology ("KRICT")

On July 13, 2009, we entered a licensing partnership with KRICT to develop a synthetic process for Quinoxalines compounds. These compounds provide selective toxicity towards hypoxic cells – cells found in solid tumors and that are resistant to anticancer drugs and radiation therapy, making them a potential treatment for solid tumors.

The University of Maryland Baltimore ("UMB")

On February 1, 2007, we entered into a Maryland Industrial Partnership Agreement with the UMB to collaborate with and sponsor the joint development of polymer-drug conjugates for cancer therapy, for the targeted delivery of cancer drugs. Intellectual property made or developed under this agreement is jointly owned by us and UMB.

Revaax Pharmaceuticals LLC ("Revaax")

On February 10, 2005, we licensed on an exclusive basis, with the right to sublicense, all of the IP of Revaax, which includes four patents and multiple patent applications, with respect to certain chemical structures that have demonstrated in pre-clinical research the potential to treat certain behavioral disorders, such as anxiety, depression and cognitive disorders (the "Licensed Products"). This agreement expires upon the expiration of the royalty term for all Licensed Products in all countries, which is no earlier than August 2020 and could extend to August 2024.

This agreement provides for an initial license fee and milestone payments based on the initiation of pivotal trials for disease treatment indication for licensed products. Furthermore, we will pay Revaax a specified fee for each Licensed Product under the agreement upon receipt of the first approval by any federal, state or local regulatory, department, bureau or other governmental entity necessary prior to the commercial

sale of the Licensed Product ("Marketing Approval"). Notwithstanding the milestone payment arrangement described above, we are not obligated to make any milestone payment with respect to milestone events for which we receive sublicense revenues and are obligated to pay Revaax a percentage of such sublicense revenues, as well as royalties for sales of Licensed Products based on net sales of the Licensed Products.

Under the agreement we agreed to pay Revaax an initial license fee of $375,000, payable in 8 installments of $46,875 each over a period of 2 years from February 10, 2005. In addition, we also agreed to pay Revaax a number of one time payments within 30 days of the first achievement of the following milestones, (a) $500,000 with respect to the dosing of the first patient in the first Phase III clinical trial or other controlled study in humans of the efficacy and safety with regards to any product the manufacture, use or sale of which is covered by any claim of an issued and unexpired patent (the "Pivotal Trial") within the Licensed Products, and $250,000 with respect to the dosing of the first patient, in the second, third, fourth and fifth Pivotal Trial, and $125,000 with respect to the dosing of the first patient in any subsequent Pivotal Trial, (b) $5,000,000 with respect to the receipt of Marketing Approval, and $2,500,000 with respect to the receipt of the second, third, fourth and fifth Marketing Approval for a Licensed Product, and $1,250,000 with respect to any subsequent Marketing Approval. We are not under an obligation to make any payments with respect to milestone events for which we receive any non-creditable upfront fees or milestone payments received by us from any sublicense in connection with the development and commercialization of a Licensed Product by such sublicense, less any license fees, milestone payments, or royalties payable by us to a third party under any technology acquisition agreement in connection with the development or commercialization of a Licensed Product, but specifically excluding any royalties revenues derived from any sublicense agreements. Also, at our option, we may elect to make up to 50% of any milestone payment in shares of our common stock with the number of shares determined by dividing the amount of the milestone portion by the fair market value of one share of common stock, as reasonably determined by our board of directors.

We also agreed to pay Revaax royalty payments on all sales of the Licensed Product made to third parties. The royalties consist of (a) 4% of the portion of the aggregate net sales of the Licensed Product during a calendar year that is equal to or less than $250,000,000, (b) 5% of the portion of aggregate net sales of the Licensed Product in a calendar year that is greater than $250,000,000 but equal to or less than $500,000,000, (c) 6% of the aggregate sales of the Licensed Product during a calendar year that is greater than $500,000,000 but equal to or less than $750,000,000, and (d) 7% of the aggregate net sales of the Licensed Product during a calendar year exceeds $750,000,000. The royalty payment obligations will expire on the later of (a) expiration of any claim of an issued and unexpired patent within the Licensed Products which has not been held unenforceable or invalid and which has not been disclaimed or admitted to be invalid or unenforceable through reissue or otherwise (the "Valid Claim") that, for the licenses granted under the Agreement, would be infringed by the sale of such Licensed Product, and (b) 10 years after the first commercial sale of the Licensed Product by us, our affiliates or sublicenses anywhere in the world.

Upon expiration of the Valid Claim for a particular Licensed Product in a particular country, each of the royalty fees will be reduced by 50% for the remainder of the term remaining on our royalty payment obligations, resulting in royalty fees of 2%, 2.5%, 3%, and 3.5%, as applicable.

Rexgene Biotech Co., Ltd. ("Rexgene")

On February 6, 2003 we entered into a Research Collaboration Agreement with Rexgene to collaborate in the development of a cancer treatment therapeutic compound denominated RX-0201(Archexin). We jointly agreed to develop a research and development plan for the purpose of registering Archexin for sale and use in the Republic of Korea and other Asian countries. The research and development plan would include clinical and animal trials to be conducted in the United States, clinical trials to be conducted in Korea and other Asian countries. We agreed to provide as its initial contribution to the joint development and research, a license to all technology related to Archexin. Rexgene agreed to provide, as its initial contribution $1,500,000 to be used by us in further development of Archexin. Rexgene agreed to pay us a royalty fee of 3% of net sales of licensed products related to Archexin in all countries in Asia by Rexgene or any sublicensee of Rexgene.

The agreement was scheduled to expire upon the last to expire of all US and foreign patents presently or in the future issued that cover Archexin, or if no licensed patent is issued within 20 years from the date of execution of the agreement. A breach of the agreement by either party will afford the non-breaching party the

right to terminate the agreement upon 90 days written notice of termination specifying the obligations breached, provided that within said 90 days the breaching party does not remedy the breach.

Total Research and Development Costs

We have incurred research and development costs of $3,392,896 and $11,992,087 for the years ended December 31, 2012 and 2011 respectively. Research and development costs primarily consist of clinical trials and preclinical development costs, as well as payroll costs for research and development personnel.

Employees

We currently have 14 full-time employees, all of whom are based either at our Rockville, Maryland office or our Germantown, Maryland lab facility. Our employees are not covered by any collective bargaining agreement and we have never experienced a work stoppage. We believe our relationships with our employees are satisfactory.

Available Information

Under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Company is required to file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (the "SEC"). Any document the Company files with the SEC may be read and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at (800) SEC-0330 for further information about the public reference room. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

The Company makes available, free of charge, on its website at www.rexahn.com its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and all amendments thereto, as soon as reasonably practicable after the Company files such reports with, or furnishes them to, the SEC. Investors are encouraged to access these reports and the other information about the Company's business on its website. Information found on the Company's website is not part of this Annual Report on Form 10-K. The Company will also provide copies of its Annual Report on Form 10-K, free of charge, upon written request to the Investor Relations Department at the Company's main address, 15245 Shady Grove Road, Suite 455, Rockville MD 20850

Also posted on the Company's website, and available in print upon written request of any shareholder to the Company's Investor Relations Department, are the charters of the standing committees of its Board.

Item 1A. Risk Factors.

You should carefully consider the risks described below together with the other information included in this Form 10-K. Our business, financial condition or results of operations could be adversely affected by any of these risks. If any of these risks occur, the value of our common stock could decline.

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. 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 are not currently profitable and may never become profitable.

We have generated no revenues to date from product sales. Our accumulated deficit as of December 31, 2012 and 2011 was $63,311,283 and $57,084,613, respectively. For the years ended December 31, 2012, and 2011, we had net losses of $6,226,670 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; and
- hiring additional personnel.

We also expect to continue to experience negative cash flow for the foreseeable future as we fund our operations and capital expenditures. Until we have the capacity to generate revenues, we are relying upon outside funding resources to fund our cash flow requirements.

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 for FDA 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 an 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 they 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 ("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 the 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 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 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 the results that the Phase IIb clinical study showed 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 submissions 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.

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 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.

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.

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 and 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.

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, toxicology studies, and clinical trials. 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 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 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 will afford us against competitors, including whether third parties 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 whether we win or lose;

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

- 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 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.

Due to legal and factual uncertainties regarding the scope and protection afforded by patents and other proprietary rights, we may not have meaningful protection from competition.

Our long-term success will substantially depend upon our ability to protect our proprietary technologies from infringement, misappropriation, discovery and duplication and avoid infringing the proprietary rights of others. Our patent rights and the patent rights of development stage biopharmaceutical companies in general, are highly uncertain and include complex legal and factual issues. These uncertainties also mean that any patents that we own or will obtain in the future could be subject to challenge, and even if not challenged, may not provide us with meaningful protection from competition. Patents already issued to us or our pending applications may become subject to dispute, and any dispute could be resolved against us.

In connection with the process of seeking patent protection for RX-5902 in Japan, we filed a patent application including claims covering RX-5902 with the Japanese Patent Office (JPO) for examination. The JPO initially agreed that the claims covering the compound for RX-5902 were allowable, but as a result of a mistake in the patent application filing as prepared and submitted by our Japanese patent attorneys and incomplete review by the JPO's patent examiner, the JPO issued a decision to grant a patent with claims that did not include RX-5902. We appealed this decision within the JPO to request withdrawal of the decision to grant so that the correct claims would be allowed, but the JPO refused to withdraw its decision. As a result, and in accordance with Japanese law and procedure for appealing patent application decisions, we have filed a lawsuit against the JPO in Tokyo District Court to cause the JPO to reverse its decision to grant the errant patent and to allow a patent that includes claims covering RX-5902. The patent application at issue remains pending subject to the outcome of this action. There can be no guarantee that we will be successful in winning the appeal to correct the error in the patent registration which would exclude the compound for RX-5902.

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 whether we win or lose, and which could result in a substantial diversion of our management 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.

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 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 and 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 stepped down as Chief Executive Officer in February, 2013 but will remain with the Company as our Chief Scientist and Chairman, and we appointed Peter D. Suzdak as our Chief Executive 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.

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 interest

on bank account balances and short-term investments. Our accumulated deficit as of December 31, 2012 and 2011 was $63,311,283 and $57,084,613, respectively. For the years ended December 31, 2012, and 2011, we had net losses of $6,226,670 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.

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 our 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 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 have not declared or paid, and do not expect to declare or pay, any cash dividends on our common stock 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 CPRD 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 1,200,000 shares) during a three-month period. Non-affiliates may sell restricted securities after six months without any limits on volume.

Our common stock is currently listed on the NYSE AMEX 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 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.

Item 1B. Unresolved Staff Comments.

None

Item 2. Description of Property.

We lease approximately 5,466 square feet of office space at 15245 Shady Grove Road, Rockville, Maryland 20850. We also lease approximately 1,100 square feet of laboratory space at 20271 Goldenrod Lane 2086, #2088, Germantown, Maryland 20876. The facility is equipped with the requisite laboratory services required to conduct our business and we believe that our existing facilities are adequate to meet our needs for the foreseeable future. The office lease, which commenced on June 29, 2009, is for a five year term. The laboratory lease, which commenced on July 1, 2009, is for one year term and was renewed for additional years commencing July 1, 2010, July 1, 2011 and July 1, 2012. We do not own any real property.

Item 3. Legal Proceedings.

None

Item 4. Mine Safety Disclosures

Not Applicable

PART II

Item 5. Market for Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

As of March 22, 2013, we are authorized to issue two classes of capital stock, which are common stock and preferred stock. Our total authorized shares of common stock and preferred stock are 500,000,000 shares, par value $0.0001 per share, and 100,000,000 shares, par value $0.0001, respectively. As of March 22, 2013, we have 119,428,929 shares of common stock outstanding and approximately 8500 stockholders of record of common stock. As of March 22, 2013, no shares of preferred stock are outstanding.

Our common stock is traded on the NYSE AMEX, formerly known as the American Stock Exchange, under the ticker symbol "RNN." From May 16, 2005 to May 23, 2008 our common stock was traded on the Over the Counter Bulletin Board (the OTC-BB) under the ticker symbol "RXHN." From November 2004 until May 13, 2005, our common stock was traded on the OTC-BB under the ticker symbol "CPRD."

The following table sets forth the high and low sales prices of our common shares as reported during the periods indicated.

Period	High	Low
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
2012		
First Quarter	0.64	0.39
Second Quarter	0.53	0.30
Third Quarter	0.75	0.35
Fourth Quarter	0.53	0.29

Dividends

We have not paid any cash dividends on common stock and do not expect to do so in the foreseeable future. We anticipate that any earnings generated from future operations will be used to finance our operations. No restrictions exist upon our ability to pay dividends.

Purchase of Equity Securities by the Issuer and Affiliated Purchasers

There were no repurchases of equity securities in 2012.

Sale of Unregistered Equity Securities

On January 19, 2011, the Company completed a sale of 2,334,515 shares of the Company's common stock to Teva for an aggregate purchase price of $3,950,000. This investment by Teva was

made pursuant to the Purchase Agreement, whereby Teva had the option to make an additional investment in the Company's common stock for the purpose of supporting the research and development program for the pre-clinical stage, anti-cancer compound RX-3117. This per share price of the Company's common stock purchased by Teva was determined pursuant to the Purchase Agreement, as amended, which provided for a per share price of 120% above the closing price on January 5, 2011. The securities were issued pursuant to the exemption from the registration requirements of the Securities Act of 1933, as amended, afforded by Section 4(2) thereof, as a transaction to an accredited investor not involving a public offering.

On December 7, 2012 the Company completed a sale of 2,083,333 shares of the Company's common stock to Teva for an aggregate purchase price of $750,000. This investment by Teva was made pursuant to the Purchase Agreement, as amended, whereby Teva had the option to make an additional third investment in the Company's common stock for the purpose of supporting the research and development program for the pre-clinical stage, anti-cancer compound RX-3117. This per share price of the Company's common stock purchased by Teva was determined pursuant to the Purchase Agreement, as amended, which provided for a per share price of 120% above the closing price on December 6, 2012. The securities were issued pursuant to the exemption from the registration requirements of the Securities Act of 1933, as amended, afforded by Section 4(2) thereof, as a transaction to an accredited investor not involving a public offering.

Equity Compensation Plan Information

The following table provides information, as of December 31, 2012, about shares of our common stock that may be issued upon the exercise of options, warrants and rights granted to employees, consultants or directors under all of our existing equity compensation plans.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	**Weighted average exercise price of outstanding options, warrants and rights**	**Number of securities remaining available for future issuance under equity compensation plans**
Equity compensation plans approved by stockholders	**7,741,795**	**$1.03**	**8,578,000**
Equity compensation plans not approved by stockholders	**–**	**–**	**–**
Total	**7,741,795**	**$1.03**	**8,578,000**

Item 6. Selected Financial Data.

A smaller reporting company is not required to provide information required by this Item.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation.

You should read the following discussion and analysis of our results of operations, financial condition and liquidity in conjunction with our financial statements and the related notes, which are included in this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategies for our business, statements regarding the industry outlook, our expectations regarding the future performance of our business, and the other non-historical statements contained herein are forward-looking statements. See "Cautionary Statement Regarding Forward-Looking Statements." You should also review the "Risk Factors" section under this Item 1A of this Annual Report for a discussion of important factors that could cause actual results to differ materially from the results described herein or implied by such forward-looking statements.

Overview

Our company resulted from the merger of Corporate Road Show.Com Inc., a New York corporation incorporated in November 1999, ("CPRD"), and Rexahn, Corp, a Maryland corporation, immediately after giving effect to our reincorporation as a Delaware corporation under the name "Rexahn Pharmaceuticals, Inc." In connection with that transaction, a wholly owned subsidiary of ours merged with and into Rexahn, Corp, with Rexahn, Corp remaining as the surviving corporation and a wholly owned subsidiary of ours. In exchange for their shares of capital stock in Rexahn, Corp, the former stockholders of Rexahn, Corp received shares of common stock representing approximately 91.8% of the Company's outstanding equity after giving effect to the transaction. Further, upon the effective time of the Merger, our historic business was abandoned and the business plan of Rexahn, Corp was adopted. The transaction was therefore accounted for as a reverse acquisition with Rexahn, Corp as the accounting acquiring party and CPRD as the acquired party. In September 2005, Rexahn, Corp was merged with and into the Company.

Our efforts and resources have been focused primarily on acquiring and developing our pharmaceutical technologies, raising capital and recruiting personnel. We are a development stage company and have no product sales to date and we will not receive any product sales until we receive approval from the FDA or equivalent foreign regulatory bodies to begin selling our pharmaceutical candidates. Our major sources of working capital have been proceeds from various private financings, primarily private sales of common stock and debt securities, and collaboration agreements with our strategic investors.

Critical Accounting Policies

A "critical accounting policy" is one which is both important to the portrayal of our financial condition and results and requires our management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Our accounting policies are in accordance with United States generally accepted accounting principles, or GAAP, and their basis of application is consistent with that of the previous year. Our significant estimates include assumptions made in estimating the fair values of stock-based compensation and our assessment relating to the impairment of intangible assets and deferred revenues.

Research and Development

Research and development costs are expensed as incurred. Research and development expenses consist primarily of third party service costs under research and development agreements, salaries and related personnel costs, as well as stock compensation related to these costs, costs to acquire

pharmaceutical products and product rights for development and amounts paid to contract research organizations, hospitals and laboratories for the provision of services and materials for drug development and clinical trials.

Costs incurred in obtaining the license rights to technology in the research and development stage that have no alternative future uses and are for unapproved product compounds are expensed as incurred.

Fair Value of Financial Instruments

The carrying amounts reported in the accompanying financial statements for cash and cash equivalents, prepaid expenses and other current assets and accounts payable and accrued expenses approximate fair value because of the short-term maturity of these financial instruments. The fair value methodology for our warrant liabilities, put feature on common stock, and marketable securities is described in detail in Item 8 of this Form 10-K.

Income Taxes

The Company accounts for income taxes in accordance with Accounting Standards Codification ("ASC") 740, "Income Taxes." ("ASC 740") Deferred tax assets and liabilities are recorded for differences between the financial statement and tax basis of the assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates. ASC 740 requires that a valuation allowance be established when it is more likely than not that all portions of a deferred tax asset will not be realized. A review of all positive and negative evidence needs to be considered, including a company's current and past performance, the market environment in which the company operates, length of carryback and carryforward periods and existing contracts that will result in future profits. Income tax expense is recorded for the amount of income tax payable or refundable for the period, increased or decreased by the change in deferred tax assets and liabilities during the period.

As a result of the Company's significant cumulative losses, we determined that it was appropriate to establish a valuation allowance for the full amount of our deferred tax assets.

The calculation of our tax liabilities involves the inherent uncertainty associated with the application of complex tax laws. We are subject to examination by various taxing authorities. We believe that as a result of our losses sustained to date, any examination would result in a reduction of our net operating loss carryforward rather than a tax liability. As such, we have not provided for additional taxes estimated under ASC 740.

Warrant Liabilities

In accordance with ASC 480, "Distinguishing Liabilities from Equity," we record warrant liabilities at fair value due to provisions in our warrant agreements, as discussed in Footnote 12 of Item 8 of this Form 10-K. We reevaluate the fair value of our warrants at each reporting period, and changes in the fair value between reporting periods is recorded as "unrealized gain on fair value of warrants" in the statement of operations.

Put Feature on Common Stock

We extended anti-dilution protection provisions on our common stock to our investors in our December 2007 and March 2008 financings, whereby in the event that we sell or issue shares below the effective purchase price paid, the investors would thereupon receive additional shares in a ratio outlined in the Securities Purchase Agreement. In accordance with ASC 480, this feature is a written put on our common stock, and is classified as a liability at fair value. We reevaluate the fair value at each reporting period, and changes in the fair value are recorded as unrealized gain on put feature on common stock in the statement of operations. The anti-dilution provisions expired in December, 2009 and March, 2010.

Stock-Based Compensation

In accordance with ASC 718, "Stock Compensation" compensation costs related to share-based payment transactions, including employee stock options, are to be recognized in the financial statements. In addition, the Company adheres to the guidance set forth within SEC Staff Accounting Bulletin No. 107 ("SAB 107"), which provides the Staff's views regarding the interaction between ASC 718 and certain SEC rules and regulations, and provides interpretations with respect to the valuation of share-based payments for public companies.

Impairment of Long-Lived Assets

In accordance with ASC 360, "Property, Plant and Equipment," long-lived assets to be held and used are analyzed for impairment whenever events or changes in circumstances indicate that the related carrying amounts may not be recoverable. The Company evaluates at each balance sheet date whether events and circumstances have occurred that indicate possible impairment. If there are indications of impairment, the Company uses future undiscounted cash flows of the related asset or asset grouping over the remaining life in measuring whether the assets are recoverable. In the event such cash flows are not expected to be sufficient to recover the recorded asset values, the assets are written down to their estimated fair value. Management determined that an impairment of intangible assets occurred in 2009 and wrote-off the assets remaining carrying value of $286,132.

Concentration of Credit Risk

ASC 825, "Financial Instruments," requires disclosure of any significant off-balance sheet risk and credit risk concentration. The Company does not have significant off-balance sheet risk or credit concentration. The Company maintains cash and short-term investments with major financial institutions. From time to time the Company has funds on deposit with commercial banks that exceed federally insured limits. The balances are insured by the Federal Deposit Insurance Corporation up to $250,000. At December 31, 2012, the Company's uninsured cash balance was $13,805,740. Management does not consider this to be a significant credit risk as the banks are large, established financial institutions.

Recent Accounting Pronouncements Affecting the Company

Fair Value Measurements

In May 2011, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update 2011-04 to Accounting Standards Codification ("ASC") 820, "Fair Value Measurements and Disclosures" ("ASC 820") which amends the disclosure requirements for fair value instruments. The new disclosures required include disclosure regarding the sensitivity of the fair value measurement to changes in unobservable inputs, and the interrelationships between those unobservable inputs. The guidance is effective for the Company for fiscal years and interim periods beginning on or after December 15, 2011. The Company adopted this guidance during the first quarter of 2012.

Comprehensive Income

In June 2011, the FASB issued authoritative guidance for presentation and disclosure of comprehensive income in the financial statements. Under the new guidance, a company may no longer present the components of other comprehensive income as part of the statement of changes in the Statement of Stockholder's Equity, and instead must present the components of comprehensive income either in the Statement of Operations or in a separate statement immediately following the Statement of Operations. In addition, reclassification adjustments between comprehensive income and net income must be disclosed on the financial statements. This guidance is effective for the Company for fiscal years and interim periods

beginning on or after December 15, 2011. The Company adopted this guidance during the first quarter of 2012.

In February, 2013 the FASB issued Accounting Standards Update 2013-02, "*Comprehensive Income: Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income,"* to improve the transparency of reporting reclassifications from comprehensive income to net income. The new amendments require that a company must present the effects on line items of net income of significant amounts reclassified out of accumulated other comprehensive income, and additional referencing and disclosure regarding these items. The guidance is effective for the Company for fiscal years and interim periods beginning on or after December 15, 2012. Management believes that the adoption of this guidance will not have a material impact on the financial statements.

Results of Operations

Comparison of the Year Ended December 31, 2012 and the Year Ended December 31, 2011

Total Revenues

The Company had no revenues for the years ended December 31, 2012 or 2011.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related expenses for executive, finance and other administrative personnel, recruitment expenses, professional fees and other corporate expenses, including business development, investor relations, and general legal activities.

General and administrative expenses decreased $834,680, or 23.5%, to $2,713,149 for the year ended December 31, 2012 from $3,547,829 for the year ended December 31, 2011. The decrease is primarily attributed to stock option compensation. There were a large number of options that fully vested in 2011, which resulted in expense in 2011 but not in 2012. During the year ended December 31, 2012 we reduced investor relations activities by consolidating our investor relations activities to one provider. In addition, the year ended December 31, 2011 had greater professional fees related to the restatement of our financial statements due to reclassifying our warrants and put feature on common stock from equity to liabilities for the year ended December 31, 2009.

Research and Development Expenses

Research and development expenses consist primarily of salaries and related personnel costs, fees paid to consultants and outside service providers for laboratory development and other expenses relating to the design, development, testing, and enhancement of our drug candidates. We expense our research and development costs as they are incurred.

Research and development expenses decreased $8,599,191 or 71.7%, to $3,392,896 for the year ended December 31, 2012, from $11,992,087 for the year ended December 31, 2011. The decrease is primarily due to the costs associated with the Serdaxin Phase IIb trial, where we incurred approximately $7,430,000 for the year ended December 31, 2011. In addition, we incurred less costs for RX-3117 in 2012 compared to 2011 due to drug manufacturing costs in 2011 that were used for the exploratory Phase I clinical trial.

Patent Fees

Our patent fees decreased $114,928, or 21.0%, to $431,099 for the year ended December 31, 2012, from $546,027 for the year ended December 31, 2011. The decrease was primarily due to legal costs to respond to the office actions on pending patent applications, and translation fees associated with regionalizing patents in foreign jurisdictions for the year ended December 31, 2011, but did not occur in 2012.

Depreciation and Amortization

Depreciation and amortization expense decreased $2,684, or 6.0% to $42,386 for the year ended December 31, 2012 from $45,070 for the year ended December 31, 2011. The decrease is primarily due to fully depreciated assets for which we incurred depreciation in 2011 but not in 2012.

Interest Income

Interest income decreased $88,148, or 80.7% to $21,092 for the year ended December 31, 2012 from $109,240 for the year ended December 31, 2011. The decrease is due to a decrease in interest rates and interest bearing investments for the year ended December 31, 2012 compared to the year ended December 31, 2011.

Unrealized Gain on Fair Value of Warrants

Our warrants are recorded as liabilities at fair value, and the warrants are valued using a lattice model. Changes in the fair value of warrants are recorded as an unrealized gain or loss in our Statement of Operations. During the year ended December 31, 2012 and 2011, we recorded an unrealized gain on the fair value of our warrants of $663,876 and $4,778,450. The change in the fair value of our warrants is a non-cash item reflected in our financial statements.

Net Loss

As a result of the above, net loss for the year ended December 31, 2012 was $6,226,670, or $0.06 per share, compared to a net loss of $11,344,950, or $0.12 per share, for the year ended December 31, 2011.

Research and Development Projects

Research and development expenses are expensed as incurred. Research and development expenses consist primarily of salaries and related personnel costs, costs to acquire pharmaceutical products and product rights for development and amounts paid to contract research organizations, hospitals and laboratories for the provision of services and materials for drug development and clinical trials. Costs incurred in obtaining the license rights to technology in the research and development stage and have no alternative future uses are expensed as incurred. Our research and development programs are related to our oncology clinical stage drug candidates, Archexin, RX-3117 and RX-5902, our CNS candidates Serdaxin and Zoraxel and pre-clinical stage drug candidates, RX-0047-Nano, RX-0201-Nano, and RX-21101. Each of our drug candidates is in various stages of completion as described below. As we expand our clinical studies, we will enter into additional development agreements. Significant additional expenditures will be required if we complete our clinical trials, start new trials, apply for regulatory approvals, continue development of our technologies, expand our operations and bring our products to market. The eventual total cost of each clinical trial is dependent on a number of uncertainties such as trial design, the length of the trial, the number of clinical sites and the number of patients. The process of obtaining and maintaining regulatory approvals for new therapeutic products is lengthy, expensive and uncertain. Because the successful development of our most advanced drug candidates, Archexin, RX-3117, RX-5902, Serdaxin and Zoraxel, is uncertain, and because, RX-0047-Nano, RX-0201-Nano, and RX-21101 are in early-stage development, we are unable to estimate the costs of completing our research and development programs, the timing of bringing such programs to market and, therefore, when material cash inflows could commence from the sale of these drug candidates. If these projects are not completed as planned, our results of operations and financial condition could be negatively affected.

The table below summarizes the amounts spent on each of our research and development projects through December 31, 2012:

	2012	2011	Cumulative from March 19, 2001 (Inception) to December 31, 2012
Clinical Candidates			
Archexin	$ 165,000	$ 230,000	$ 6,635,000
RX-3117	1,065,000	1,397,500	4,262,500
RX-5902	626,000	510,000	1,199,000
Serdaxin	150,000	7,430,000	9,820,000
Zoraxel	10,000	205,000	1,255,000
Preclinical Compounds:	295,000	680,000	2,412,000
Total	$ 2,311,000	$ 10,452,500	$ 25,583,500

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. The most frequent reported adverse events were constipation, nausea, abdominal pain and pyrexia, regardless of relatedness. Rexahn is evaluating options for advancing Archexin, including initiating Phase IIa clinical trials for chemo-resistant solid tumors and hematological malignancies in the second half of 2013... We own one issued U.S. patent for Archexin.

As of December 31, 2012, we have spent approximately $6,635,000 for the development of Archexin. The trial was completed in the third quarter of 2012, and we estimate that we have approximately an additional $110,000 of costs yet to be billed by vendors for this trial. We currently estimate that additional Phase II trials for Archexin will cost approximately $2,900,000.

RX-3117

In 2009, we closed on the RELO and a Purchase Agreement with 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. On January 19, 2011, we entered into a second amendment to the Purchase Agreement, whereby Teva purchased 2,334,515 shares of our common stock for $3.95 million. This second amendment also provided for a possible third investment by Teva, in the amount of $750,000. 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, and with no adverse events reported in the study. On December 7, 2012, Teva exercised the third investment option, which constituted the final closing of the Purchase Agreement, and we issued 2,083,333 shares for $750,000. On December 27, 2012 we received $926,000 from Teva pursuant to a second amendment to the RELO for the further development of RX-3117. The costs of the exploratory Phase I clinical study were approximately $550,000. As of December 31, 2012, we have incurred approximately $4,262,500 for the development of RX-3117. We anticipate that RX-3117 will enter a Phase I clinical trial in the second half of 2013.

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 IND Application to the FDA for RX-5902. As of December 31, 2012, we have incurred approximately $1,199,000 for the development of RX-5902. RX-5902 may enter Phase I clinical trials during the first half of 2013. We estimate the costs of the Phase I clinical study to be approximately $1,800,000.

Serdaxin® (RX-10100)

Serdaxin is an extended release formulation of clavulanic acid, which is an ingredient present in antibiotics approved by the FDA. We developed Serdaxin for the treatment of depression and neurodegenerative disorders. From January to September, 2011, we conducted a randomized, double-blind, placebo-controlled study that compared two doses of Serdaxin, 0.5 mg and 5 mg, to placebo over an 8-week treatment period for 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 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 are currently not allocating resources to further develop Serdaxin to treat MDD and are looking for partners who will fund the clinical development.

Through December 31, 2012, the pre-clinical and clinical costs incurred for development of Serdaxin to date have been approximately $9,820,000. We do not anticipate additional costs for Serdaxin.

***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 encouraging 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 results of the Serdaxin Phase IIb MDD clinical trial and that Zoraxel and Serdaxin share a common ingredient, we are currently looking for partners who will fund the clinical development of Zoraxel.

Through December 31 2012, the costs incurred for development of Zoraxel to date have been approximately $1,255,000. We currently estimate that these Phase IIb studies would require approximately $2,300,000 but we have not allocated additional resources to the development of Zoraxel at this time.

Pre-clinical Pipeline

RX-0201-Nano, RX-0047-Nano and RX-21101 are all in a pre-clinical stage of development. Through December 31, 2012, the costs incurred for development of these compounds to date have been approximately $2,412,000. The estimated cost to complete pre-clinical toxicology and Phase I clinical trials is estimated to be approximately $1,500,000 per each compound.

The conduct of the clinical trial and toxicology studies described above are being accomplished in conjunction with third-party clinical research organizations at external locations. This business practice is typical for the pharmaceutical industry and companies like us. As a result, 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, unexpected expenses may result.

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.

Liquidity and Capital Resources

Operating Activities

Cash used in operating activities was $6,619,559 for the year ended December 31, 2012. The operating cash flows during the year ended December 31, 2012 reflect our net loss of $6,226,670 and a net decrease of cash components of working capital and non-cash charges totaling $392,889. Cash used in operating activities was $15,530,306 for the year ended December 31, 2011.

Cash provided by investing activities was $2,189,964 for the year ended December 31, 2012, consisted of $1,850,000 from the sale of marketable securities, and a decrease in restricted cash of $339,964. Cash used in investing activities for the year ended December 31, 2011 was $545,919.

Cash provided by financing activities of $8,054,650 for the year ended December 31, 2012 consisted of net proceeds of $7,128,650 from the issuance 22,000,000 shares of common stock to investors, and 2,083,333 shares to Teva. The investors were also issued warrants to purchase 12,100,000 shares of common stock. Cash provided by financing activities was $13,597,474 for the year ended December 31, 2011.

Financings

We have financed our operations since inception primarily through equity and convertible debt financings and interest income from investments of cash and cash equivalents. During fiscal year 2012, we had a net increase in cash and cash equivalents of $3,625,055. The increase resulted from cash provided by financing and investing activities of $8,054,650 and $2,189,964, respectively, offset by cash used in operating activities of $6,619,559.

On March 31, 2011, the Company closed on a purchase agreement to issue 8,333,333 shares of common stock at a price of $1.50 per share to an institutional investor for net proceeds of $9,293,876 which includes $706,124 of cash stock issuance costs. The investors were also issued warrants to purchase 3,333,333 shares of common stock at a purchase price of $1.50 per share, exercisable on or after six months from the date of delivery until the five-year anniversary of the date the warrants are exercisable. There warrants were valued at $2,826,666 and recorded as warrant liabilities. The closing costs included 208,333 warrants, valued at $97,667, and $706,124 of underwriter's discounts and professional and other fees.

On December 4, 2012 we closed on an underwritten public offering to issue and sell 19,130,435 shares of common stock and warrants to purchase up to 10,521,739 shares of common stock. The common stock and warrants were sold in units, consisting of common stock and a warrant to purchase 0.55 shares of common stock, at a price of $0.33 per share. The warrants have an exercise price of $0.472 per whole share of common stock. Pursuant to the underwriting agreement, we granted the Underwriters a 45-day option to purchase an additional 2,869,565 shares of common stock and warrants to purchase 1,578,261 shares of common stock. On December 4, 2012, the underwriters partially exercised this option, to purchase an additional 869,565 units, consisting of 869,565 shares of common stock and warrants to purchase 478,261 shares of common stock. On December 10, 2012, the underwriters exercised the remaining overallotment option to purchase an additional 2,000,000 units, consisting of 2,000,000 shares of common stock and warrants to purchase 1,100,000 shares of common stock. The total gross proceeds of this offering was $7,260,000. The warrants issued are exercisable on the closing date until the five-year anniversary of the closing date, and were recorded as liabilities at fair value. The closing costs of $977,434 included warrants to purchase 880,000 shares of common stock issued to the underwriters valued at $163,096, and $814,338 for underwriter's discounts, and professional and other fees.

For the next 12 months, we will have to fund all of our operations and capital expenditures from the net proceeds of equity and debt offerings we may make, cash on hand, licensing fees and grants. Although we expect to have to pursue additional financing, there can be no assurance that we will be able to secure financing when needed or obtain such financing on terms satisfactory to us, if at all, or that any additional funding we do obtain will be sufficient to meet our needs in the long term. If we are not able to raise sufficient additional money, we will have to reduce our research and development activities.

Contractual Obligations

We have contracted with various vendors to provide research and development services. The terms of these agreements usually require an initiation fee and monthly or periodic payments over the term of the agreement, ranging from 2 months to 36 months. The costs to be incurred are estimated and are subject to revision. As of December 31, 2012, the total contract value of these agreements was approximately $19,705,682 and we made payments totaling $17,875,371 under the terms of the agreements. All of these agreements may be terminated by either party upon appropriate notice as stipulated in the respective agreements.

On September 9, 2010, we and three of our key executives entered into Amended and Restated Employment Agreements. The Amended and Restated Employment Agreements replace the prior employment contracts entered into on August 10, 2009. We entered into the Amended and Restated Employment Agreements in order to provide the key executives with: (i) an automatic one year renewal upon the expiration of the initial three year term and upon each consecutive year term unless such employment with the Company is terminated earlier by the Company or the executives; (ii) an annual base salary adjustment for inflation as determined by the Consumer Price Index subject to review by the Company's Compensation Committee; (iii) an increase in the Company provided life insurance coverage from an amount equal to two times the executive's annual base salary to an amount equal to four times the executive's annual base salary; and (iv) a one-time cash payment, subject to applicable withholding requirements under applicable state and federal law, in an amount equal to the executive's increased income tax costs as a result of payments made to the executive by the Company under the change of control provisions of the Amended and Restated Employment Agreement. Other than these changes, the new contracts have substantially similar terms to the executives' prior employment agreements. The agreements result in annual commitments of $350,000, $250,000 and $200,000, respectively.

On June 22, 2009, we entered into a License Agreement with Korea Research Institute of Chemical Technology (KRICT) to acquire the rights to all intellectual properties related to Quinoxaline-Piperazine derivatives that were synthesized under a Joint Research Agreement. The initial license fee was $100,000, all of which was paid as of December 31, 2009. The agreement with KRICT calls for a one-time milestone payment of $1,000,000 within 30 days after the first achievement of marketing approval of the first commercial product arising out of or in connection with the use of KRICT's intellectual properties. As of December 31, 2012, this milestone has not occurred.

On June 29, 2009, we signed a five year lease for 5,466 square feet of office space in Rockville, Maryland commencing on June 29, 2009. The lease requires annual base rents of $76,524 with increases over the next five years. Under the leasing agreement, we pay our allocable portion of real estate taxes and common area operating charges. We paid $158,835 and $148,593, for rent under this lease in the years ended December 31, 2012 and 2011, respectively.

Future rental payments over the next five years and thereafter are as follows:

2013	$162,806
2014	82,408
	$245,214

In connection with the lease agreement, we issued a letter of credit of $100,000 in favor of the lessor. We have restricted cash equivalents of the same amount for the letter of credit. On August 2, 2010 and July 1, 2011, the letter of credit was reduced to $50,000, and $37,500 respectively, per the lease agreement.

On September 21, 2009, the Company closed on the Purchase Agreement with Teva, under which Teva purchased 3,102,837 shares of our common stock for $3.5 million. Contemporaneous with the execution and delivery of this agreement, the parties executed a research and the RELO pursuant to which the Company agreed to use $2,000,000 from the gross proceeds of the issuance and sale of shares to Teva to fund a research and development program for the pre-clinical development of RX-3117. On January 19, 2011, the Company entered into a second amendment to the Purchase Agreement in which Teva purchased 2,334,515 shares of the common stock of the Company for gross proceeds of $3,950,000, which the Company agreed to use for the further preclinical development of RX-3117. On December 7, 2012, Teva exercised its option to purchase $750,000 of common stock, and we issued Teva 2,083,333 shares. This constituted the third and final closing agreed to in the Purchase Agreement, and the use of these funds is not restricted. On December 27, 2012, we received funds from Teva in accordance with a second amendment to the RELO agreement, entered into on November 27, 2012 in which Teva provided us with an additional $926,000 of research funding for the development of RX-3117. We did not issue equity for this transaction.

The table below summarizes the investments made under the Purchase Agreement and RELO:

Date of Investment		Investment Amount	Shares Issued	Proceeds Remaining in Restricted Cash as of 12/31/12	Deferred Research and Development Arrangement Balance at 12/31/12
9/21/2009	$	3,500,000	3,102,837	$ -	-
1/19/2011		3,950,000	2,334,515	178,301	-
12/7/2012		750,000	2,083,333	-	-
12/27/2012		926,000	-	876,000	876,000
Total	$	9,126,000	7,520,685	$ 1,054,301	$ 876,000

On May 30, 2012, and June 22, 2011, we signed a one year renewal to use lab space commencing on July 1, 2012 and 2011, respectively. The lease requires monthly rental payments of $4,554. Rent paid under the lease during the years ended December 31, 2012 and 2011 was $54,648.

We established a 401(k) plan for our employees where we match 100% of the first 3% of the employee's deferral plus 50% of an additional 2% of the employee's deferral. Expense related to this matching contribution aggregated $65,686, and $66,162 for the years ended December 31, 2012 and 2011, respectively.

Current and Future Financing Needs

We have incurred negative cash flow from operations since we started our business. We have spent, and expect to continue to spend, substantial amounts in connection with implementing our business strategy, including our planned product development efforts, our clinical trials, and our research and development efforts. Total cash, including restricted cash, and marketable securities, was $14,678,344 as of December 31, 2012. Based on our current plans and our capital resources, we believe that our cash, restricted cash, and marketable securities will be sufficient to enable us to meet our minimum planned operating needs over the next eighteen months which would entail focusing our resources on Phase II clinical trials of Archexin, Phase I clinical trials of RX-3117 and RX-5902, and the further development of our preclinical pipeline. Over the next twelve months, we expect to spend a minimum of approximately $1.8 million for Phase II clinical trials of Archexin. We also expect to pay $2.5 million on the development of RX-3117 and RX-5902, $2.6 million for the development of our preclinical pipeline and general research and development costs, $3.1 million on general corporate expenses, and approximately $220,000 on facilities rent. These figures include our commitments described earlier under "Contractual Obligations" under this Item 7. We will need to seek additional financing to implement and fund drug candidate development, clinical trial and research and development efforts to the maximum extent of our operating plan, including in-vivo animal and pre-clinical studies, clinical trials for new product candidates, as well as other research and development projects. If we are not able to secure additional financing, we may not be able to implement and fund the research and development

However, the actual amount of funds we will need to operate is subject to many factors, some of which are beyond our control. These factors include the following:

- the progress of our product development activities;
- the number and scope of our product development programs;
- the progress of our pre-clinical and clinical trial activities;
- the progress of the development efforts of parties with whom we have entered into collaboration agreements;
- our ability to maintain current collaboration programs and to establish new collaboration arrangements;
- the costs involved in prosecuting and enforcing patent claims and other intellectual property rights; and
- the costs and timing of regulatory approvals.

Impact of Inflation

To date inflationary factors have not had a significant effect on our operations.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

For the year ended December 31, 2012, we are exposed to the following market risks:

Interest Rate Risk

We invest our cash in a variety of financial instruments. At December 31, 2012, our cash was invested primarily in short term bank deposits and municipal obligations, all of which were denominated in U.S. dollars. Due to the conservative nature of these investments, which primarily bear interest at fixed rates, we do not believe we have material exposure to interest rate risk. At December 31, 2012, we had no debt instruments on our balance sheet.

Foreign Currency Risk

We are exposed to risks associated with foreign currency transactions on contracts with vendors associated outside of the United States. Accordingly changes in the value of the U.S. dollar, relative to other currencies, may have an impact on our financial statements and earnings. The number and dollar amount of contracts denominated in foreign currency is immaterial; therefore, we believe we do not have material exposure to foreign currency risk.

Item 8. Financial Statements and Supplementary Data.

Our financial statements and the Report of the Independent Registered Public Accounting Firm thereon filed pursuant to this Item 8 and are included in this annual report on Form 10-K beginning on page F-1.

Item 9. Changes In and Disagreements With Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act")) as of the end of the period covered by this report. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this report were effective such that the information required to be disclosed by us in reports filed under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding disclosure. A controls system cannot provide absolute assurance, however, that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

Changes in Internal Control Over Financial Reporting. During the most recent quarter ended December 31, 2012, there has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act)) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and the dispositions of the assets of the Company;

- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorization of management and the board of directors of the Company; and

- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluations of effectiveness to future periods are subject to risk that controls may become inadequate because of changes in conditions or because of declines in the degree of compliance with the policies or procedures.

Our management, with the participation of the Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2012. In making this assessment, the Company's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework.

Based on this evaluation, our management, with the participation of the Chief Executive Officer and Chief Financial Officer, concluded that, as of December 31, 2012 our internal control over financial reporting was effective.

This annual report does not include an attestation report of the Company's registered public accounting firm regarding internal controls over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm pursuant to temporary rules of the SEC that permit the Company to provide only management's report in this annual report.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information to be provided under the caption "Election of Directors," to be contained in the Definitive Proxy Statement and required to be disclosed in this Item 10, is hereby incorporated by reference in this Item 10; and the information to be provided under the caption "Section 16(a) Beneficial Ownership Reporting Compliance," to be contained in the Definitive Proxy Statement and required to be disclosed pursuant to Section 16(a) of the Exchange Act, is also hereby incorporated by reference in this Item 10.

Code of Ethics

We have adopted a code of ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Rexahn's Code of Ethics is posted on its website, which is located at www.rexahn.com.

We intend to satisfy any disclosure requirement regarding an amendment to, or waiver from, a provision of this code of ethics by posting such information on our website, at the address specified above.

Item 11. Executive Compensation.

The information to be provided under the caption "Executive Compensation and Other Matters," to be contained in the Definitive Proxy Statement and required to be disclosed in this Item 11, is hereby incorporated by reference in this Item 11.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information to be provided under the captions "Equity Compensation Plan Information" and "Security Ownership of Management and Certain Security Holders," each to be contained in the Definitive Proxy Statement and required to be disclosed in this Item 12, is hereby incorporated by reference in this Item 12.

Item 13. Certain Relationships and Related Transactions; and Director Independence.

Related Transactions

The information to be provided under the caption "Certain Relationships and Related Transactions," to be contained in the Definitive Proxy Statement and required to be disclosed in this Item 13, is hereby incorporated by reference in this Item 13.

Item 14. Principal Accounting Fees and Services.

The information to be provided under the caption "Proposal 2 Ratification of the Appointment of the Independent Registered Public Accounting Firm, Fees," to be contained in the Definitive Proxy Statement and required to be disclosed in this Item 14, is hereby incorporated by reference in this Item 14.

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as a part of this Annual Report on Form 10-K:

(1) Financial Statements:

(2) Exhibits:

The documents listed below are filed with this Annual Report on Form 10-K as exhibits or incorporated into this Annual Report on Form 10-K by reference as noted:

Exhibit Number	Exhibit Description
3.1	Amended and Restated Certificate of Incorporation, filed as Appendix G to the Company's Definitive Proxy Statement on Schedule 14A (File No. 000-50590) dated April 29, 2005, is incorporated herein by reference.
3.2	Amended and Restated Bylaws, filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on March 26, 2010, is incorporated herein by reference.
4.1	Specimen Certificate for the Company's Common Stock, par value $.0001 per share, filed as Exhibit 4.3 to the Company's Registration Statement on Form S-8 (File No. 333-129294) dated October 28, 2005, is incorporated herein by reference.
4.2	Form of Senior Debt Securities Indenture, filed as Exhibit 4.3 to the Company's Registration Statement on Form S-3 dated June 22, 2011, is incorporated herein by reference.
4.3	Form of Subordinated Debt Securities Indenture, filed as Exhibit 4.3 to the Company's Registration Statement on Form S-3 dated June 22, 2011 is incorporated herein by reference.
*10.1.1	Rexahn Pharmaceuticals, Inc. Stock Option Plan, as amended, filed as Exhibit 4.4 to the Company's Registration Statement on Form S-8 (File No. 333-129294) dated October 28, 2005, is incorporated herein by reference.
*10.1.2	Form of Stock Option Grant Agreement for Employees, filed as Exhibit 4.5.1 to the Company's Registration Statement on Form S-8 (File No. 333-129294) dated October 28, 2005, is incorporated herein by reference.
*10.1.3	Form of Stock Option Grant Agreement for Non-Employee Directors and Consultants, filed as Exhibit 4.5.2 to the Company's Registration Statement on Form S-8 (File No. 333-129294) dated October 28, 2005, is incorporated herein by reference.
*10.2	Employment Agreement, dated as of September 9, 2010, by and between Rexahn Pharmaceuticals, Inc. and C. H. Ahn, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 10, 2010, is incorporated herein by reference.

*10.3	Employment Agreement, dated as of September 9, 2010, by and between Rexahn Pharmaceuticals, Inc. and T. H. Jeong, filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on September 10, 2010, is incorporated herein by reference.
10.4	Lease Agreement, dated June 5, 2009, by and between Rexahn Pharmaceuticals, Inc. and The Realty Associates Fund V, L.P., filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, is incorporated herein by reference
*10.5	Employment Agreement, dated as of September 9, 2010, by and between Rexahn Pharmaceuticals, Inc. and Rakesh Soni, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on September 10, 2010, is incorporated herein by reference.
10.6	Securities Purchase Agreement, dated as of May 19, 2009 by and between Rexahn Pharmaceuticals, Inc. and the purchaser signatory thereto, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 20, 2009, is incorporated herein by reference.
10.7	Form of Warrant for the Company's Series I, II, and III Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on May 20, 2009, is incorporated herein by reference.
10.8	Research and Exclusive License Option Agreement, dated as of June 26, 2009, by and between Rexahn Pharmaceuticals, Inc. and Teva Pharmaceutical Industries Limited, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 21, 2009, is incorporated herein by reference.
10.9	Securities Purchase Agreement, dated as of June 26, 2009, by and between Rexahn Pharmaceuticals, Inc. and Teva Pharmaceutical Industries Limited (the "Teva Securities Purchase Agreement"), filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on September 21, 2009, and Amendment No. 1 to the Teva Securities Purchase Agreement, filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on September 21, 2009, are incorporated herein by reference.
10.10	Securities Purchase Agreement, dated as of October 19, 2009, by and between Rexahn Pharmaceuticals, Inc. and the purchasers signatory thereto, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K, filed on October 20, 2009, is incorporated herein by reference.
10.11	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on October 20, 2009, is incorporated herein by reference.
10.12	Securities Purchase Agreement, dated as of June 28, 2010 by and between Rexahn Pharmaceuticals, Inc. and the purchasers signatory thereto, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K, filed on June 29, 2010, is incorporated herein by reference.
10.13	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 29, 2010, is incorporated herein by reference.
10.14	Amendment No. 2 to the Teva Securities Purchase Agreement, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 20, 2011, is incorporated herein by reference.
10.15	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 30, 2011, is incorporated herein by reference.
10.16	Amendment No.2 to the Research and Exclusive License Agreement, dated November 27, 2012, by and between Rexahn Pharmaceuticals, Inc. and Teva Pharmaceutical Industries, Limited, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 27, 2012, is incorporated herein by reference.
10.17	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 30, 2012, is incorporated herein by reference.
10.18	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.2 to the Company's Current Report on Form 8-K filed on November 30, 2012 is incorporated herein by reference.

14	Code of Ethics and Business Conduct, filed as Exhibit 14 to the Company's Annual Report on 10-K for the fiscal year ended December 31, 2008, filed on March 16, 2009, is incorporated herein by reference.
16	Letter of Lazar Levine & Felix LLP dated February 27, 2009, filed as Exhibit 16.1 to the Company's Amended Current Report on Form 8-K filed on March 2, 2009, is incorporated herein by reference.
23	Consent of ParenteBeard LLC, independent registered public accounting firm.
24	Power of Attorney
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a).
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a).
32.1	Certification of Chief Executive Officer of Periodic Report Pursuant to 18 U.S.C. Section 1350.
32.2	Certification of Chief Financial Officer of Periodic Report Pursuant to 18 U.S.C. Section 1350.
**101.INS	XBRL Instance Document
**101.SCH	XBRL Taxonomy Extension Schema
**101.CAL	XBRL Taxonomy Calculation Linkbase
**101.DEF	XBRL Taxonomy Definition Linkbase
**101.LAB	XBRL Taxonomy Label Linkbase
**101.PRE	XBRL Taxonomy Presentation Linkbase

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* Management contract or compensation plan or arrangement.

**Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, as amended, and is deemed not filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is otherwise not subject to liability under these sections.

SIGNATURES

In accordance with the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the issuer has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on this 22 day of March, 2013.

REXAHN PHARMACEUTICALS, INC.

By: /s/ Peter D. Suzdak
Peter D. Suzdak
Chief Executive Officer

In accordance with the requirement of the Securities Exchange Act of 1934, this report has been signed on the 22 day of March, 2013 by the following persons on behalf of the issuer and in the capacities indicated:

Name	Title
/s/ Peter Suzdak* Peter Sudzak	Chief Executive Officer (Principal Executive Officer)
/s/ Tae Heum Jeong* Tae Heum Jeong	Chief Financial Officer, and Secretary (Principal Financial and Accounting Officer)
/s/ Chang H. Ahn* Chang H. Ahn	Chairman
/s/ Peter Brandt* Peter Brandt	Director
/s/ David McIntosh* David McIntosh	Director
/s/ Charles Beever* Charles Beever	Director
/s/ Kwang Soo Cheong* Kwang Soo Cheong	Director
/s/ Richard Kivel* Richard Kivel	Director
/s/ Si Moon Hwang* Si Moon Hwang	Director

* By: /s/ Tae Heum Jeong, Attorney-in Fact
Tae Heum Jeong, Attorney-in-Fact**

** By authority of the power of attorney filed as Exhibit 24 hereto.

Report of Independent Registered Public Accounting Firm

To the Board of Directors
Rexahn Pharmaceuticals, Inc.

We have audited the accompanying balance sheet of Rexahn Pharmaceuticals, Inc. (the "Company") (a development stage company) as of December 31, 2012 and 2011, and the related statements of operations, comprehensive loss, stockholders' equity (deficit), and cash flows for each of the years then ended, and the cumulative period from March 19, 2001 (inception) to December 31, 2012. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above, present fairly, in all material respects, the financial position of Rexahn Pharmaceuticals, Inc. as of December 31, 2012 and 2011, and the results of its operations and its cash flows for the years then ended, and the cumulative period from March 19, 2001 (inception) to December 31, 2012, in conformity with accounting principles generally accepted in the United States of America.

/s/ PARENTEBEARD LLC

Reading, Pennsylvania
March 22, 2013

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
Balance Sheet

	December 31, 2012	December 31, 2011
ASSETS		
Current Assets:		
Cash and cash equivalents	**$ 13,486,543**	$ 9,861,488
Marketable securities (note 3)	**100,000**	1,950,000
Prepaid expenses and other current assets (note 4)	**188,808**	333,171
Note receivable – current portion (note 5)	**-**	18,682
Total Current Assets	**13,775,351**	12,163,341
Restricted Cash Equivalents (note 15)	**1,091,801**	1,431,765
Equipment, Net (note 6)	**52,156**	94,542
Total Assets	**$ 14,919,308**	$ 13,689,648
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable and accrued expenses (note 7)	**$ 851,837**	$ 1,185,405
Deferred Research and Development Arrangements (note 8)	**1,626,000**	825,000
Other Liabilities (note 9)	**65,417**	104,388
Warrant Liabilities (note 12)	**2,842,065**	868,725
Total Liabilities	**5,385,319**	2,983,518
Commitments and Contingencies (note 15)		
Stockholders' Equity (note 10):		
Preferred stock, par value $0.0001, 100,000,000 authorized shares, none issued and outstanding	**-**	-
Common stock, par value $0.0001, 500,000,000 authorized shares, 119,443,194 and 95,359,861 issued and 119,428,989 and 95,345,656 outstanding	**11,944**	9,536
Additional paid-in capital	**72,861,738**	67,809,617
Accumulated deficit during the development stage	**(63,311,283)**	(57,084,613)
Treasury stock, 14,205 shares, at cost	**(28,410)**	(28,410)
Total Stockholders' Equity	**9,533,989**	10,706,130
Total Liabilities and Stockholders' Equity	**$ 14,919,308**	$ 13,689,648

(See accompanying notes to the financial statements)

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statement of Operations

	For the Year Ended December 31		Cumulative from March 19, 2001 (Inception) to December 31,
	2012	2011	2012
Revenues:			
Research	**$ -**	$ -	$ -
Expenses:			
General and administrative	**2,713,149**	3,547,829	30,060,144
Research and development	**3,392,896**	11,992,087	35,278,499
Patent fees	**431,099**	546,027	2,532,104
Depreciation and amortization	**42,386**	45,070	682,923
Total Expenses	**6,579,530**	16,131,013	68,553,670
Loss from Operations	**(6,579,530)**	(16,131,013)	(68,553,670)
Other Income (Expense)			
Realized loss on marketable securities	**-**	(3,960)	(13,301)
Interest income	**21,092**	109,240	1,442,399
Interest expense	**-**	-	(301,147)
Other income	**-**	**-**	56,047
Unrealized gain on fair value of warrants	**663,876**	4,778,450	4,339,981
Unrealized gain on fair value of put feature on common stock	**-**	-	2,315,539
Financing expense	**(332,108)**	(97,667)	(972,131)
Beneficial conversion feature	**-**	-	(1,625,000)
Total Other Income (Expense)	**352,860**	4,786,063	5,242,387
Net Loss Before Provision for Income Taxes	**(6,226,670)**	(11,344,950)	(63,311,283)
Provision for income taxes	**-**	**-**	**-**
Net Loss	**$ (6,226,670)**	$ (11,344,950)	**$** (63,311,283)
Net loss per share, basic and diluted	**$ (0.06)**	$ (0.12)	
Weighted average number of shares outstanding, basic and diluted	**97,138,233**	93,048,490	

(See accompanying notes to the financial statements)

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statement of Comprehensive Loss

	For the Year Ended December 31,		Cumulative from March 19, 2001 (Inception) to December 31,
	2012	2011	2012
Net Loss	**$ (6,226,670)**	$ (11,344,950)	$ (63,311,283)
Reversal of unrealized loss on securities available-for-sale	**-**	2,340	-
Total Comprehensive Loss	**$ (6,226,670)**	$ (11,342,610)	$ (63,311,283)

(See accompanying notes to the financial statements)

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statement of Stockholders' Equity (Deficit)
Period from March 19, 2001 (Inception) to December 31, 2012

	Common Stock				Treasury Stock			
	Number of Shares	Amount	Additional Paid-in Capital	Accumulated Deficit During the Development Stage	Number of Shares	Amount	Accumulated Other Comprehensive Loss	Total Stockholders' Equity (Deficit)
Opening Balance, March 19, 2001	-$	-$	-$	-	-$	-$	-$	-
Common Stock issued	7,126,666	71,266	4,448,702	-	-	-	-	4,519,968
Net loss	-	-	-	(625,109)	-	-	-	(625,109)
Balances at December 31, 2001	7,126,666	71,266	4,448,702	(625,109)	-	-	-	3,894,859
Net loss				(1,181,157)	-	-	-	(1,181,157)
Balances at December 31, 2002	7,126,666	71,266	4,448,702	(1,806,266)	-	-	-	2,713,702
Common Stock issued	500,000	5,000	1,995,000	-	-	-	-	2,000,000
Stock based compensation	-	-	538,074	-	-	-	-	538,074
Net loss	-	-	-	(2,775,075)	-	-	-	(2,775,075)
Balances at December 31, 2003	7,626,666	76,266	6,981,776	(4,581,341)	-	-	-	2,476,701
Common Stock issued	1,500	15	1,785	-	-	-	-	1,800
Stock based compensation	-	-	230,770	-	-	-	-	230,770
Net loss	-	-	-	(3,273,442)	-	-	-	(3,273,442)
Balances at December 31, 2004	7,628,166	76,281	7,214,331	(7,854,783)	-	-	-	(564,171)
Stock split (5 for 1)	30,512,664	(72,467)	72,467	-	-	-	-	-
Common Stock issued in connection with merger	3,397,802	340	(340)	-	-	-	-	-
Common Stock issued for cash	4,175,000	417	8,349,565	-	-	-	-	8,349,982
Common Stock issued on conversion of convertible debt	650,000	65	1,299,935	-	-	-	-	1,300,000
Stock options exercised	40,000	4	9,596	-	-	-	-	9,600
Common stock issued in exchange for services	7,000	1	21,876	-	-	-	-	21,877
Beneficial conversion feature	-	-	1,625,000	-	-	-	-	1,625,000
Stock based compensation	-	-	436,748	-	-	-	-	436,748
Net Loss	-	-	-	(6,349,540)	-	-	-	(6,349,540)
Balances at December 31, 2005	46,410,632	4,641	19,029,178	(14,204,323)	-	-	-	4,829,496

(See accompanying notes to the financial statements)

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statement of Stockholders' Equity (Deficit) (continued)
Period from March 19, 2001 (Inception) to December 31, 2012

	Common Stock				Treasury Stock			
	Number of Shares	Amount	Additional Paid-in Capital	Accumulated Deficit During the Development Stage	Number of Shares	Amount	Accumulated Other Comprehensive Loss	Total Stockholders' Equity (Deficit)
Balances at December 31, 2005	46,410,632	4,641	19,029,178	(14,204,323)	-	-	-	4,829,496
Stock options exercised	61,705	6	14,802	-	-	-	-	14,808
Common Stock issued on conversion of convertible debt	3,850,000	385	3,849,615	-	-	-	-	3,850,000
Purchase of treasury stock	-	-	-	-	14,205	(28,410)	-	(28,410)
Stock based compensation	-	-	1,033,956	-	-	-	-	1,033,956
Net loss	-	-	-	(6,486,003)	-	-	-	(6,486,003)
Balances at December 31, 2006	50,322,337	5,032	23,927,551	(20,690,326)	14,205	(28,410)	-	3,213,847
Common stock issued	4,857,159	486	1,144,219	-	-	-	-	1,144,705
Stock options exercised	127,500	12	59,988	-	-	-	-	60,000
Stock based compensation	-	-	1,121,646	-	-	-	-	1,121,646
Stock issuance costs	-	-	(139,674)	-	-	-	-	(139,674)
Net loss	-	-	-	(4,442,331)	-	-	-	(4,442,331)
Balances at December 31, 2007	55,306,996	5,530	26,113,730	(25,132,657)	14,205	(28,410)	-	958,193
Common stock issued	642,858	65	155,450	-	-	-	-	155,515
Stock options exercised	90,000	9	31,191	-	-	-	-	31,200
Stock based compensation	-	-	484,684	-	-	-	-	484,684
Net loss	-	-	-	(3,681,801)	-	-	-	(3,681,801)
Unrealized loss on securities available-for-sale	-	-	-	-	-	-	(550,480)	(550,480)
Balances at December 31, 2008	56,039,854	5,604	26,785,055	(28,814,458)	14,205	(28,410)	(550,480)	(2,602,689)
Issuance of common stock and units	15,883,847	1,588	9,996,015	-	-	-	-	9,997,603
Stock options exercised	15,000	2	3,600	-	-	-	-	3,602
Stock issuance costs	-	-	(641,018)	-	-	-	-	(641,018)
Stock based compensation	-	-	497,531	-	-	-	-	497,531
Net loss	-	-	-	(2,903,098)	-	-	-	(2,903,098)
Reversal of unrealized loss on securities available-for-sale	-	-	-	-	-	-	550,480	550,480
Balances at December 31, 2009	71,938,701	7,194	36,641,183	(31,717,556)	14,205	(28,410)	-	4,902,411

(See accompanying notes to the financial statements)

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statement of Stockholders' Equity (Deficit) (continued)
Period from March 19, 2001 (Inception) to December 31, 2012

	Common Stock				Treasury Stock			
	Number of Shares	Amount	Additional Paid-in Capital	Accumulated Deficit During the Development Stage	Number of Shares	Amount	Accumulated Other Comprehensive Loss	Total Stockholders' Equity (Deficit)
Balances at December 31, 2009	71,938,701	7,194	36,641,183	(31,717,556)	14,205	(28,410)	-	4,902,411
Issuance of common stock and units	6,666,667	667	8,198,534	-	-	-	-	8,199,201
Stock issuance costs	-	-	(681,773)	-	-	-	-	(681,773)
Common stock issued in exchange for services	1,700,000	170	2,107,830	-	-	-	-	2,108,000
Stock options exercised	155,500	16	107,224	-	-	-	-	107,240
Stock warrants exercised	3,714,186	371	9,199,797	-	-	-	-	9,200,168
Stock based compensation	-	-	584,657	-	-	-	-	584,657
Net loss	-	-	-	(14,022,107)	-	-	-	(14,022,107)
Unrealized loss on securities available-for-sale	-	-	-	-	-	-	(2,340)	(2,340)
Balances at December 31, 2010	84,175,054	8,418	56,157,452	(45,739,663)	14,205	(28,410)	(2,340)	10,395,457
Issuance of common stock and units	10,667,848	1,067	11,122,265	-	-	-	-	11,123,332
Stock issuance costs	-	-	(729,727)	-	-	-	-	(729,727)
Stock options exercised	183,000	18	59,222	-	-	-	-	59,240
Stock warrants exercised	333,959	33	561,798	-	-	-	-	561,831
Stock based compensation	-	--	-	638,607	-	-	-	-	638,607
Net loss	-	-	-	(11,344,950)	-	-	-	(11,344,950)
Reversal of unrealized loss on securities available-for-sale	-	-	-	-	-	-	2,340	2,340
Balances at December 31, 2011	95,359,861	9,536	67,809,617	(57,084,613)	14,205	(28,410)	-	10,706,130
Issuance of common stock and units	24,083,333	2,408	5,533,472	-	-	-	-	5,535,880
Stock issuance costs	-	-	(712,338)	-	-	-	-	(712,338)
Stock based compensation	-	-	230,987	-	-	-	-	230,987
Net loss	-	-	-	(6,226,670)	-	-	-	(6,226,670)
Balances at December 31, 2012	119,443,194	11,944	72,861,738	(63,311,283)	14,205	(28,410)	-	9,533,989

(See accompanying notes to the financial statements)

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statement of Cash Flows

	For the Year Ended December 31,		Cumulative From March 19, 2001 (Inception) to December 31,
	2012	2011	2012
Cash Flows from Operating Activities:			
Net loss	**$ (6,226,670)**	$ (11,344,950)	$ (63,311,283)
Adjustments to reconcile net loss to net cash used in operating activities:			
Beneficial conversion feature	**-**	-	1,625,000
Compensatory stock	**-**	-	2,129,877
Depreciation and amortization	**42,386**	45,070	682,923
Stock-based compensation	**230,987**	638,607	5,808,616
Amortization of deferred research and development arrangements	**(125,000)**	(75,000)	(800,000)
Note receivable	**18,682**	28,023	-
Realized losses on marketable securities	**-**	3,960	13,301
Unrealized gain on fair value of warrants	**(663,876)**	(4,778,450)	(4,339,981)
Unrealized gain on fair value of put feature on common stock	**-**	-	(2,315,539)
Financing expense	**332,108**	97,667	972,131
Amortization of deferred lease incentive	**(20,000)**	(20,000)	(70,000)
Deferred lease expenses	**(18,971)**	(8,729)	35,417
Loss on impairment of intangible assets	**-**	-	286,132
Changes in assets and liabilities:			
Prepaid expenses and other current assets	**144,363**	373,478	(188,808)
Research tax credit receivable	**-**	145,513	-
Accounts payable and accrued expenses	**(333,568)**	(635,495)	851,837
Net Cash Used in Operating Activities	**(6,619,559)**	(15,530,306)	(58,620,377)
Cash Flows from Investing Activities:			
Restricted cash equivalents	**339,964**	(1,029,872)	(1,091,801)
Purchase of equipment	**-**	(16,047)	(564,995)
Purchase of marketable securities	**-**	(8,000,000)	(21,123,960)
Proceeds from sales of marketable securities	**1,850,000**	8,500,000	21,010,659
Payment of licensing fees	**-**	-	(356,216)
Net Cash Provided by (Used In) Investing Activities	**2,189,964**	(545,919)	(2,126,313)
Cash Flows from Financing Activities:			
Issuance of common stock and units, net of issuance costs	**7,128,650**	13,220,273	62,934,224
Proceeds from exercise of stock options	**-**	59,240	170,082
Proceeds from exercise of stock warrants	**-**	317,961	3,581,337
Proceeds from long-term debt	**-**	-	5,150,000
Proceeds from research and development arrangements	**926,000**	-	2,426,000
Purchase of treasury stock	**-**	-	(28,410)
Net Cash Provided by Financing Activities	**8,054,650**	13,597,474	74,233,233
Net Increase (Decrease) in Cash and Cash Equivalents	**3,625,055**	(2,478,751)	13,486,543
Cash and Cash Equivalents – beginning of period	**9,861,488**	12,340,239	-
Cash and Cash Equivalents - end of period	**$ 13,486,543**	$ 9,861,488	$ 13,486,543

(See accompanying notes to the financial statements)

REXAHN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statement of Cash Flows (continued)

	For the Year Ended December 31,		Cumulative From March 19, 2001 (Inception) to December 31,
	2012	2011	2012
Supplemental Cash Flow Information			
Interest paid	$ -$	-$	301,147
Non-cash financing and investing activities:			
Warrants issued	$ **2,637,216** $	2,924,333 $	13,691,643
Put feature on common stock issued	$ -$	-$	4,954,738
Dilutive issuances of common stock	$ -$	-$	2,639,199
Warrant liability extinguishment from exercise of warrants	$ -	243,868 $	6,180,660
Leasehold improvement incentive	$ -$	-$	100,000
Settlement of lawsuit	$ -$	-$	43,953

(See accompanying notes to the financial statements)

1. Operations and Organization

Operations

Rexahn Pharmaceuticals, Inc. (the "Company", "Rexahn Pharmaceuticals"), a Delaware corporation, is a development stage biopharmaceutical company dedicated to the discovery, development and commercialization of innovative treatments for cancer, central nervous system ("CNS") disorders, sexual dysfunction and other medical needs. The Company had an accumulated deficit of $63,311,283 at December 31, 2012 and anticipates incurring losses through fiscal 2013 and beyond. The Company has not yet generated commercial sales revenue and has been able to fund its operating losses to date through the sale of its common stock, warrants exercisable for common stock, issuance of long-term debt, and proceeds from reimbursed research and development costs. The Company believes that its existing cash, cash equivalents, and marketable securities will be sufficient to cover its cash flow requirements into 2014. Management has the capability of managing the Company's operations within existing cash available by focusing on select research and development activities, and selecting projects in conjunction with potential financings and milestones.

Reverse Merger Acquisition

Pursuant to an Agreement and Plan of Merger by and among Rexahn, Corp ("Rexahn"), Corporate Road Show.Com Inc. ("CRS"), a New York corporation and predecessor corporation of the Company, CRS Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of CRS ("Merger Sub"), CRS Delaware, Inc., a Delaware corporation and wholly owned subsidiary of CRS, immediately after giving effect to a 1-for-100 reverse stock split and the reincorporation of CRS as a Delaware corporation under the name Rexahn Pharmaceuticals, Inc. ("Rexahn Pharmaceuticals"), on May 13, 2005, Merger Sub merged with and into Rexahn, with Rexahn surviving as a wholly owned subsidiary of Rexahn Pharmaceuticals (the "Acquisition Merger"). In the Acquisition Merger, (i) each share of the issued and outstanding common stock of Rexahn (other than dissenting shares) was converted into the right to receive five shares of Rexahn Pharmaceuticals common stock; and (ii) each issued, outstanding and unexercised option to purchase a share of Rexahn common stock was converted into an option to purchase five shares of Rexahn Pharmaceuticals common stock.

Shares of Rexahn Pharmaceuticals common stock issued in the Acquisition Merger were exempt from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act"), pursuant to Regulation D under the Securities Act and/or Regulation S under the Securities Act. These shares of Rexahn Pharmaceuticals common stock are deemed "restricted securities" and bear an appropriate restrictive legend indicating that the resale of such shares may be made only pursuant to registration under the Securities Act or pursuant to an available exemption from such registration.

For accounting purposes, the Acquisition Merger was accounted for as a reverse acquisition of CRS (legal acquirer) by Rexahn (accounting acquirer). As a result, following the Acquisition Merger, the historical financial statements of Rexahn became the historical financial statements of the Company.

Merger of Subsidiary

On September 29, 2005, the Company's wholly owned subsidiary, Rexahn, was merged with and into the Company and Rexahn's separate existence was terminated.

2. Summary of Significant Accounting Policies

a) Cash and Cash Equivalents

Cash and cash equivalents include cash on hand and short-term investments purchased with remaining maturities of three months or less at acquisition.

b) Marketable Securities

Marketable securities are considered "available-for-sale" in accordance with Financial Statement Accounting Board ("FASB") Accounting Standard Codification ("ASC") 320, "Debt and Equity Securities", and thus are reported at fair value in our accompanying balance sheet, with unrealized gains and losses excluded from earnings and reported as a separate component of stockholders' equity. Realized gains and losses are accounted for on the basis of specific identification and are included in other income or expense in the statement of operations. The Company classifies such investments as current on the balance sheet as the investments are readily marketable and available for use in our current operations.

c) Equipment

Equipment is stated at cost less accumulated depreciation. Depreciation, based on the lesser of the term of the lease or the estimated useful life of the assets, is provided as follows:

	Life	Depreciation Method
Furniture and fixtures	7 years	straight line
Office equipment	5 years	straight line
Lab equipment	5-7 years	straight line
Computer equipment	5 years	straight line
Leasehold improvements	3-5 years	straight line

d) Research and Development

Research and development costs are expensed as incurred. Research and development expenses consist primarily of third party service costs under research and development agreements, salaries and related personnel costs, as well as stock compensation related to these costs, costs to acquire pharmaceutical products and product rights for development and amounts paid to contract research organizations, hospitals and laboratories for the provision of services and materials for drug development and clinical trials.

Costs incurred in obtaining the licensing rights to technology in the research and development stage that have no alternative future uses and are for unapproved product compounds are expensed as incurred.

e) Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are based on management's best knowledge of current events and actions the Company may undertake in the future. Actual results may ultimately differ from those estimates. These estimates are reviewed periodically and as adjustments become necessary, they are reported in earnings in the period in which they become available.

f) Fair Value of Financial Instruments

The carrying amounts reported in the accompanying financial statements for cash and cash equivalents, note receivable, prepaid expenses and other current assets and accounts payable and accrued expenses approximate fair value because of the short-term maturity of these financial instruments. The fair values for marketable securities, warrant liabilities, the put feature on common stock and all other assets and

liabilities is discussed in Notes 3, 12, 13, and 16, respectively.

g) Income Taxes

The Company accounts for income taxes in accordance with ASC 740, "Income Taxes". Deferred tax assets and liabilities are recorded for differences between the financial statement and tax basis of the assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates. ASC 740 requires that a valuation allowance be established when it is more likely than not that all portions of a deferred tax asset will not be realized. A review of all positive and negative evidence needs to be considered, including a company's current and past performance, the market environment in which the company operates, length of carryback and carryforward periods and existing contracts that will result in future profits. Income tax expense is recorded for the amount of income tax payable or refundable for the period, increased or decreased by the change in deferred tax assets and liabilities during the period.

As a result of the Company's significant cumulative losses, we determined that it was appropriate to establish a valuation allowance for the full amount of our deferred tax assets.

The calculation of our tax liabilities involves the inherent uncertainty associated with the application of complex tax laws. We are subject to examination by various taxing authorities. We believe that as a result of our loss carryforward sustained to date, any examination would result in a reduction of our net operating losses rather than a tax liability. As such, we have not provided for additional taxes estimated under ASC 740.

h) Loss Per Share

The Company accounts for loss per share pursuant to ASC 260, "Earnings per Share", which requires disclosure on the financial statements of "basic" and "diluted" loss per share. Basic loss per share is computed by dividing net loss by the weighted average number of common shares outstanding for the year. Diluted loss per share is computed by dividing net loss by the weighted average number of common shares outstanding plus potentially dilutive securities outstanding for each year. Potentially dilutive securities include stock options and warrants. Diluted loss per share for the years ended December 31, 2012 and 2011, is the same as basic loss per share due to the fact that the Company incurred losses for all periods presented and the inclusion of common share equivalents would be antidilutive. The following securities, presented on a common share equivalent basis, have been excluded from the per share computations:

	Year Ended December 31	
	2012	2011
Stock Options	7,741,795	7,646,795
Warrants	21,656,142	8,676,142

i) Stock-Based Compensation

In accordance with ASC 718, "Stock Compensation," compensation costs related to share-based payment transactions, including employee stock options, are to be recognized in the financial statements. In addition, the Company adheres to the guidance set forth within Securities and Exchange Commission ("SEC") Staff Accounting Bulletin ("SAB") No. 107, which provides the Staff's views regarding the interaction between ASC 718 and certain SEC rules and regulations, and provides interpretations with respect to the valuation of share-based payments for public companies.

j) Impairment of Long-Lived Assets

In accordance with ASC 360, "Property, Plant and Equipment," long-lived assets to be held and used are analyzed for impairment whenever events or changes in circumstances indicate that the related carrying amounts may not be recoverable. The Company evaluates at each balance sheet date whether events and circumstances have occurred that indicate possible impairment. If there are indications of impairment, the Company uses future undiscounted cash flows of the related asset or asset grouping over the remaining life in measuring whether the assets are recoverable. In the event such cash flows are not expected to be sufficient

to recover the recorded asset values, the assets are written down to their estimated fair value. Management determined that an impairment of intangible assets occurred in 2009 and wrote-off the assets remaining carrying value of $286,132, which is reflected in research and development expenses in the Company's statement of operations for the year ended December 31, 2009.

k) Concentration of Credit Risk

The Company does not have significant off-balance sheet risk or credit concentration. The Company maintains cash and short-term investments with major financial institutions. From time to time the Company has funds on deposit with commercial banks that exceed federally insured limits. The balances are insured by either the Federal Deposit Insurance Corporation or the Securities Investor Protection Corporation up to $250,000. At December 31, 2012, the Company's uninsured cash balance was $13,805,740.

l) Recent Accounting Pronouncements Affecting the Company

Fair Value Measurements

In May 2011, the FASB issued Accounting Standards Update 2011-04 to ASC 820, "Fair Value Measurements and Disclosures" ("ASC 820") which amends the disclosure requirements for fair value instruments. The new disclosures required include disclosure regarding the sensitivity of the fair value measurement to changes in unobservable inputs, and the interrelationships between those unobservable inputs. The guidance is effective for the Company for fiscal years and interim periods beginning on or after December 15, 2011. The Company adopted this guidance during the first quarter of 2012.

Comprehensive Income

In June 2011, the FASB issued authoritative guidance for presentation and disclosure of comprehensive income in the financial statements. Under the new guidance, a company may no longer present the components of other comprehensive income as part of the statement of changes in the statement of stockholders' equity, and instead must present the components of comprehensive income either in the statement of operations or in a separate statement immediately following the Statement of Operations. In addition, reclassification adjustments between comprehensive income and net income must be disclosed on the financial statements. This guidance is effective for the Company for fiscal years and interim periods beginning on or after December 15, 2011. The Company adopted this guidance during the first quarter of 2012

In February, 2013 the FASB issued Accounting Standards Update 2013-02, "*Comprehensive Income: Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income,"* to improve the transparency of reporting reclassifications from comprehensive income to net income. The new amendments require that a company must present the effects on line items of net income of significant amounts reclassified out of accumulated other comprehensive income, and additional referencing and disclosure regarding these items. The guidance is effective for the Company for fiscal years and interim periods beginning on or after December 15, 2012. Management believes that the adoption of this guidance will not have a material impact on the financial statements.

3. Marketable Securities

Cost and fair value of the Company's marketable securities are as follows:

Securities available-for-sale		Cost Basis	Gross Unrealized Gains/(Losses)	Fair Value
December 31, 2012:				
State and municipal obligations	**$**	**100,000**	**$ -**	**$ 100,000**
December 31, 2011:				
State and municipal obligations	**$**	1,950,000	$ -	$ 1,950,000

Amortized cost and fair value at December 31, 2012 by contractual maturity are shown below. Expected maturities will differ from contractual maturities because the Company may redeem certain securities at par.

Maturity	Cost Basis	Fair Value
10 years or more	$ 100,000	$ 100,000

During the year ended December 31, 2012 and 2011, the Company sold $1,850,000 and $8,500,000, respectively, of securities at par and the total amount that was reclassified from accumulated comprehensive loss into net loss was $0, and $3,960, respectively.

4. Prepaid Expenses and Other Current Assets

		December 31, 2012		December 31, 2011
Deposits on contracts	**$**	**12,818**	$	163,317
Other assets		**175,990**		169,854
	$	**188,808**	$	333,171

Deposits on contracts consist of deposits on research and development contracts for services that had not been incurred as of the balance sheet date. Other assets include prepaid general and administrative expenses, such as insurance and rent.

5. Note Receivable

On June 16, 2010, Amarex, LLC ("Amarex") executed a note payable to the Company in settlement of a contract dispute. The Company settled the case with Amarex for $100,000 less a balance owed of $43,953. The principal sum of the note was $56,047, and is included in other income in the Company's cumulative statement of operations. Monthly payments of $2,335 began on September 1, 2010 and continued until August 1, 2012 at which time the balance was paid in full. The note does not bear interest. As of December 31, 2012, the note had been paid in full.

6. Equipment, Net

	December 31, 2012	December 31, 2011
Furniture and fixtures	**$ 34,200**	$ 34,200
Office equipment	**81,074**	81,074
Lab and computer equipment	**430,261**	430,261
Leasehold improvements	**119,841**	119,841
Total fixed assets	**665,376**	665,376
Less: Accumulated depreciation	**(613,220)**	(570,834)
Net carrying amount	**$ 52,156**	$ 94,542

Depreciation expense was $42,386 and $45,070 for the years ended December 31, 2012 and 2011, respectively.

7. Accounts Payable and Accrued Expenses

	December 31, 2012	December 31, 2011
Trade payables	**$ 250,682**	$ 555,613
Accrued expenses	**76,289**	50,401
Accrued research and development contract costs	**452,577**	449,775
Payroll liabilities	**72,289**	129,616
	$ 851,837	$ 1,185,405

8. Deferred Research and Development Arrangements

Rexgene Biotech Co., Ltd.

In 2003, the Company entered into a collaborative research agreement with Rexgene Biotech Co., Ltd. ("Rexgene"), a shareholder. Rexgene is engaged in the development of pharmaceutical products in Asia and has agreed to assist the Company with the research, development and clinical trials necessary for registration of the Company's drug candidate, Archexin, in Asia. This agreement provides Rexgene with exclusive rights to license, sublicense, make, have made, use, sell and import Archexin in Asia. In accordance with the agreement, Rexgene paid the Company a one-time fee of $1,500,000 in 2003. The agreement terminates at the later of 20 years or the term of the patent. The amortization reduces research and development expenses for the periods presented.

The Company is using 20 years as its basis for recognition and accordingly $75,000 reduced research and development expenses for the years ended December 31, 2012 and 2011, respectively. The remaining $750,000 and $825,000 at December 31, 2012 and December 31, 2011, respectively, is reflected as deferred research and development arrangement on the balance sheet. The contribution is being used in the cooperative funding of the costs of development of Archexin. Royalties of 3% of net sales of licensed products will become payable to the Company on a quarterly basis once commercial sales of Archexin begin in Asia. The product is still under development and commercial sales in Asia are not expected to begin until at least 2014. Under the terms of the agreement, Rexgene does not receive royalties on Company net sales outside of Asia.

Teva Pharmaceutical Industries, Ltd.

On September 21, 2009, the Company closed on a securities purchase agreement with Teva Pharmaceutical Industries Limited ("Teva"), under which Teva purchased 3,102,837 shares of our common stock for $3.5 million. Contemporaneous with the execution and delivery of this agreement, the parties executed a research and exclusive license option agreement ("RELO") pursuant to which the Company agreed to use $2,000,000 from the gross proceeds of the issuance and sale of shares to Teva to fund a research and development program for the pre-clinical development of RX-3117. On November 27, 2012, the Company and Teva entered into a second amendment to the RELO agreement, in which Teva has provided the Company with an additional $926,000 of research funding for the development of RX-3117, which is recorded as restricted cash on the Company's balance sheet. The contribution from the second amendment is recorded as a deferred research and development arrangement on the balance sheet, and costs incurred for the development of RX-3117 reduced the deferred research and development arrangement, and are paid from the restricted cash. As of December 31, 2012, the Company had proceeds remaining of $876,000 which is included in deferred research and development arrangements on the balance sheet.

9. Other Liabilities

Deferred Lease Incentive

On June 29, 2009, the Company entered into a five year office lease agreement as disclosed in Note 15. The lessor agreed to grant a leasehold improvement allowance of $100,000 to the Company to be used for the construction cost of improvements to the leased property, which included architectural and engineering fees, government agency plan check, permit and other fees, sales and use taxes, testing and inspection costs, and telephone and data cabling and wiring in the premises. The Company accounts for the benefit of the leasehold improvement allowance as a reduction of rental expense over the five-year term of the office lease.

The following table sets forth the deferred lease incentive:

	December 31, 2012	December 31, 2011
Deferred lease incentive	**$ 100,000**	$ 100,000
Less accumulated amortization	**(70,000)**	(50,000)
Balance	**$ 30,000**	$ 50,000

Deferred Office Lease Expense

The office lease agreement, disclosed above, requires an initial annual base rent with annual increases over the next five years. The Company recognizes rental expense on a straight-line basis over the term of the lease, which resulted in a deferred rent liability of $35,417 and $54,388 as of December 31, 2012 and 2011, respectively.

10. Common Stock

The following transactions occurred from March 19, 2001 (inception) to December 31, 2012:

a) On May 10, 2001, the Company issued 3,600,000 shares of common stock to the Company's founders for cash of $1.

b) On August 10, 2001, the Company issued:

i) 1,208,332 shares of common stock to the directors of the Company for cash of $1,450,000.

ii) 958,334 shares of common stock to Rexgene for cash of $550,000.

iii) 360,000 shares of common stock in a private placement to individual investors for cash of $1,080,000.

These share purchases were negotiated by the parties at various dates prior to the August 10, 2001 share issuance date.

c) On October 10, 2001, the Company issued 400,000 shares of common stock to Chong Kun Dang Pharmaceutical Corp. ("CKD") for cash of $479,991 and 400,000 shares of common stock to an individual investor for cash of $479,991.

d) On October 10, 2001, the Company issued 200,000 shares of common stock to CKD for cash of $479,985.

e) Since inception, the Company's founders have transferred 800,000 shares of the common stock described in a) to officers and directors of the Company.

f) In July 2003, the stockholders described in b) (iii) and e) transferred an aggregate of 1,268,332 shares of common stock to a voting trust. The trust allows for the unified voting of the stock by the trustees.

The appointed trustees are senior management of the Company who, together with their existing shares, control a majority of the voting power of the Company.

g) On August 20, 2003, the Company issued 500,000 shares of common stock to KT&G Corporation for cash consideration of $2,000,000.

h) On October 29, 2004, an option holder exercised options to purchase shares of common stock for cash of $1,800 and the Company issued an aggregate of 1,500 shares.

i) Pursuant to the agreement and plan of merger which occurred on May 13, 2005, (i) each share of the issued and outstanding common stock of Rexahn, Corp ("Rexahn") (other than dissenting shares) was converted into the right to receive five shares of Rexahn Pharmaceuticals common stock; (ii) each issued, outstanding and unexercised option to purchase a share of Rexahn common stock was converted into an option to purchase five shares of Rexahn Pharmaceuticals' common stock and (iii) the par value of Rexahn's common stock was adjusted to reflect the par value of Corporate Road Show Com Inc. ("CRS") common stock. In the acquisition merger, 289,780,000 CRS pre-reverse stock split shares were converted into 2,897,802 post-reverse stock split Rexahn Pharmaceuticals shares, and an additional 500,000 post-reverse stock split Rexahn Pharmaceuticals shares were issued to a former executive of CRS. All shares and earnings per share information have been retroactively restated in these financial statements.

j) On August 8, 2005, the Company issued, in a transaction exempt from registration under the Securities Act of 1993, as amended, 4,175,000 shares of common stock at a purchase price of $2.00 per share.

k) On October 3, 2005, the Company issued 7,000 shares of common stock for $21,877 and $7,500 cash in exchange for legal services from W. Rosenstadt and Steve Sanders.

l) On December 2, 2005, the holders of a convertible note that was issued on August 8, 2005 and, represented $1,300,000 aggregate principal amount, exercised their option to convert the entire principal amount of the note into the Company's common stock. Based on a $2.00 per share conversion price, the holders received an aggregate of 650,000 shares.

m) On December 27, 2005, option holders exercised options to purchase shares of the Company's common stock for cash of $9,600 and the Company issued an aggregate of 40,000 shares.

n) On February 22, 2006, an option holder exercised options to purchase shares of the Company's common stock for cash of $1,200 and the Company issued an aggregate of 5,000 shares.

o) On April 12, 2006, an option holder exercised options to purchase shares of the Company's common stock for cash of $3,409 and the Company issued an aggregate of 14,205 shares. On the same date, the Company agreed to repurchase common stock from the option holder based on the then market price for treasury in exchange for the aggregate purchase price of $28,410 in cash.

p) On May 13, 2006, holders of the $3,850,000 convertible notes issued on February 28, 2005, exercised their rights to convert the entire principal amount of the notes into shares of the Company's common stock. Based on a $1.00 per share conversion price, the Company issued 3,850,000 shares of common stock in connection with the conversion.

q) On October 9, 2006, an option holder exercised options to purchase shares of the Company's common stock for cash of $2,400 and the Company issued an aggregate of 10,000 shares.

r) On November 19, 2006, an option holder exercised options to purchase shares of the Company's common stock for cash of $1,800 and the Company issued an aggregate of 7,500 shares.

s) On December 19, 2006, an option holder exercised options to purchase shares of the Company's common stock for cash of $6,000 and the Company issued an aggregate of 25,000 shares.

t) On April 18, 2007, an option holder exercised options to purchase shares of the Company's common stock for cash of $14,400 and the Company issued an aggregate of 18,000 shares.

u) On July 23, 2007, an option holder exercised options to purchase shares of the Company's common stock for cash of $12,000 and the Company issued an aggregate of 15,000 shares.

v) On September 27, 2007, an option holder exercised options to purchase shares of the Company's common stock for cash of $15,600 and the Company issued an aggregate of 19,500 shares.

w) On December 18, 2007, the Company issued 4,857,159 units at a price $1.40 per share for total gross proceeds of $6,800,023. Investors also were issued one warrant for every five shares purchased. One warrant will entitle the holder to purchase an additional share of common stock at a purchase price of $1.80 at any time over a period of three years from the date of the closing. The Company has recorded the warrants as liabilities at fair value as disclosed in Note 12. Private placement closing costs of $139,675 were recorded as a reduction of the issuance proceeds. Private placements costs also consist of 107,144 warrants, valued at $138,326, and were recorded as a financing expense. The Company extended anti-dilutive protection to the investors. The anti-dilution protection provision is structured in a way that is designed to protect a holder's position from being diluted and contains a price protection based on a mathematical calculation, and is recorded as a liability at fair value, as disclosed in Note 13. The Company revalues these liabilities each reporting period, with the unrealized gain (loss) recorded as other income (expense).

A summary of the allocation of the proceeds of the offering is shown below:

Gross Proceeds:	$	6,800,023
Allocated to liabilities:		
Warrant liabilities		1,392,476
Less: Warrants allocated to placement agent		(138,326)
Put feature on common stock		4,401,169
Total allocated to liabilities		5,655,319
Allocated to equity:		
Common stock and additional paid-in capital		1,144,704
Total allocated gross proceeds:	$	6,800,023

x) On December 27, 2007, an option holder exercised options to purchase shares of the Company's common stock for cash of $18,000 and the Company issued an aggregate of 75,000 shares.

y) On March 20, 2008, the Company issued 642,858 units consisting of one share of the Company's common stock and one warrant for every five common shares purchased in a private placement at a price of $1.40 per unit for total gross proceeds of $900,001. One warrant will entitle the holder to purchase an additional share of common stock at a price of $1.80 at any time over a period of three years from the date of the private placement, and is recorded as a liability at fair value. The Company extended anti-dilution protection to investors, and the provision is structured in a way that is designed to protect the holder's position from being diluted and contains a price based on a mathematical computation.

A summary of the allocation of the proceeds of the offering is shown below:

Gross Proceeds:	$	900,001
Allocated to liabilities:		
Warrant liabilities		190,917
Put feature on common stock		553,569
Total allocated to liabilities		744,486
Allocated to common stock and additional paid-in capital		155,515
Total allocated gross proceeds:	$	900,001

z) On May 30, 2008, an option holder exercised options to purchase shares of the Company's common stock for cash of $7,200 and the Company issued an aggregate of 30,000 shares.

aa) On June 2, 2008, an option holder exercised options to purchase shares of the Company's common stock for cash of $12,000 and the Company issued an aggregate of 50,000 shares.

ab) On June 30, 2008, an option holder exercised options to purchase shares of the Company's common stock for cash of $12,000 and the Company issued an aggregate of 10,000 shares.

ac) On June 5, 2009 the Company closed on a purchase agreement to issue 2,857,143 shares of common stock at a price of $1.05 per share to an institutional investor for total gross proceeds of $3,000,000 and incurred $289,090 of stock issuance costs. The investor was also issued:

1) Series I warrants to purchase 2,222,222 shares of common stock at a purchase price of $1.05 per share at any time before September 3, 2009;

2) Series II warrants to purchase 1,866,666 shares of common stock at a purchase price of $1.25 per share at any time from December 3, 2009 to June 5, 2012; and

3) Series III warrants to purchase 1,555,555 shares of common stock at a purchase price of $1.50 per share at any time from December 3, 2009 to June 5, 2014.

The closing costs included 142,857 warrants valued at $122,257 and were recorded as a financing expense. All warrants issued from this purchase agreement are recorded as liabilities at fair value.

The Company incurred a derivative loss upon issuance of these warrants, as the fair value of the warrants at inception was greater than the proceeds received from the investor. The derivative loss was combined with unrealized gains (losses) for the year ended December 31, 2009.

A summary of the allocation of the proceeds of the offering is shown below:

Gross Proceeds:	$	3,000,000
Allocated to liabilities:		
Warrant liabilities		3,451,194
Less: Warrants allocated to placement agent		(122,257)
Total allocated to liabilities		3,328,937
Allocated to equity:		
Common stock and additional paid-in capital		-
Allocated to expense:		
Derivative loss at inception		(328,937)
Total allocated gross proceeds:	$	3,000,000

ad) On June 9, 2009, the Company issued 1,833,341 shares of common stock and 862,246 warrants to purchase common stock at a purchase price of $1.05 per share to existing stockholders pursuant to the anti-dilution protection provisions of the private placements transacted on December 18, 2007 and March 20, 2008. The fair value of the additional warrants issued was approximately $422,300.

ae) On September 4, 2009, an option holder exercised options to purchase shares of the Company's common stock for cash of $3,600 and the Company issued an aggregate of 15,000 shares.

af) On September 21, 2009, the Company issued 3,102,837 shares of common stock at a purchase price of $1.13 per share to an institutional investor for net proceeds of $3,371,340, which includes $128,659 of stock issuance costs.

ag) On October 23, 2009, the Company closed on a purchase agreement to issue 6,072,383 shares of common stock at a price of $0.82 per share to five institutional investors for gross proceeds of $5,000,000, which includes $351,928 of stock issuance costs. The investors were also issued warrants to purchase 2,125,334 shares of common stock at a purchase price of $1.00 per share, exercisable on or after the date of delivery until the five-year anniversary, and were recorded as liabilities at fair value. The closing costs included 245,932 warrants valued at $101,693 and were recorded as a financing expense.

A summary of the allocation of the proceeds of the offering is shown below:

Gross Proceeds:	$ 5,000,000
Allocated to liabilities:	
Warrant liabilities	1,114,627
Less: Warrants allocated to placement agent	(101,693)
Total allocated to liabilities	1,012,934
Allocated to equity:	
Common stock and additional paid-in capital	3,987,066
Total allocated gross proceeds:	$ 5,000,000

ah) On October 23, 2009, the Company issued 2,018,143 shares of common stock and 569,502 warrants to purchase common stock at a purchase price of $0.82 per share to existing stockholders pursuant to anti-dilution protection provisions of the private placements transacted on December 24, 2007 and March 20, 2008. The fair value of the additional warrants issued was approximately $476,200.

ai) On February 12, 2010, the Company entered into two consulting agreements pursuant to which the Company issued 300,000 shares of common stock upon the execution of the agreements. Upon the extension of the term, 200,000 shares of common stock for each month will be issued until the termination of services.

The following table lists the issuances of shares by the Company under the consulting agreement:

Date of Issuance	Number of Shares Issued	Market Value Per Share	Total Market Value of Share Issuance
February 12, 2010	300,000	$ 1.22	$ 366,000
May 24, 2010	200,000	1.40	280,000
June 15, 2010	200,000	1.15	230,000
August 2, 2010	400,000	1.37	548,000
September 21, 2010	200,000	1.20	240,000
October 21, 2010	200,000	1.16	232,000
November 11, 2010	200,000	1.06	212,000
Total	1,700,000		$ 2,108,000

The market value of these shares was recorded as an expense and is reflected in general and administrative expenses in the Company's statement of operations. The agreements were terminated by the Company on November 11, 2010.

aj) In March 2010, warrant holders exercised their warrants to purchase shares of the Company's common stock for cash of $1,297,001 and the Company issued an aggregate of 1,197,001 shares.

ak) In March 2010, option holders exercised options to purchase shares of the Company's common stock for cash of $21,240 and the Company issued an aggregate of 48,000 shares.

al) In April 2010, warrant holders exercised their warrants to purchase shares of the Company's common stock for cash of $1,966,375 and the Company issued an aggregate of 1,595,825 shares.

am) On April 20, 2010, an option holder exercised options to purchase shares of the Company's common stock for cash of $86,000 and the Company issued an aggregate of 107,500 shares.

an) In May 2010, warrant holders exercised 890,051 cashless warrants to obtain shares of the Company's common stock and the Company issued an aggregate of 547,674 shares.

ao) On June 30, 2010, the Company entered into a purchase agreement to issue 6,666,667 shares of common stock at a price of $1.50 per share to investors for gross proceeds of $10,000,000, which includes $681,773 of stock issuance costs. The investors were also issued warrants to purchase 2,000,000 shares of common stock at an exercise price of $1.90 per share. The warrants became immediately exercisable on the date of delivery until the four-year anniversary of the date of issuance. These warrants were valued at $1,800,800 and recorded as warrant liabilities. The closing costs included 200,000 warrants valued at $180,080 and were recorded as a financing expense.

Gross Proceeds:	$	10,000,000
Allocated to liabilities:		
Warrant liabilities		1,980,880
Less: Warrants allocated to placement agent		(180,080)
Total allocated to liabilities		1,800,800
Allocated to equity:		
Common stock and additional paid-in capital		8,199,200
Total allocated gross proceeds:	$	10,000,000

ap) In November 2010, warrant holders exercised 936,883 cashless warrants to obtain shares of the Company's common stock and the Company issued an aggregate of 247,491 shares.

aq) In December 2010, warrant holders exercised 530,900 cashless warrants to obtain shares of the Company's common stock and the Company issued an aggregate of 126,195 shares.

ar) On January 19, 2011, the Company issued 2,334,515 shares of common stock at a purchase price of $1.69 per share to an institutional investor for net proceeds of $3,926,397, which includes $23,603 of stock issuance costs.

as) On February 15, 2011, a warrant holder exercised warrants to purchase shares of the Company's common stock for cash of $215,104 and the Company issued 209,042 shares.

at) On February 28, 2011, an option holder exercised options to purchase shares of the Company's common stock for cash of $6,000 and the Company issued 25,000 shares.

au) On March 11, 2011, an option holder exercised options to purchase shares of the Company's common stock for cash of $12,000 and the Company issued 50,000 shares.

av) On March 28, 2011, warrant holders exercised their warrants to purchase shares of the Company's common stock for cash of $102,857 and the Company issued 124,917 shares.

aw) On March 31, 2011, the Company closed on a purchase agreement to issue 8,333,333 shares of common stock at a price of $1.20 per share to five institutional investors for gross proceeds of $10,000,000, which includes $706,124 of cash stock issuance costs. The investors were also issued warrants to purchase 3,333,333 shares of common stock at a purchase price of $1.50 per share, exercisable on or after six months after the closing date until the five-year anniversary of the initial exercise date. These warrants were recorded as liabilities with a fair value of $2,826,666. The closing costs included 208,333 warrants valued at $97,667 and were recorded as a financing expense.

A summary of the allocation of the proceeds of the offering is shown below:

Gross Proceeds:	$	10,000,000
Allocated to liabilities:		
Warrant liabilities		2,924,333
Less: Warrants allocated to placement agent		(97,667)
Total allocated to liabilities		2,826,666
Allocated to equity:		
Common stock and additional paid-in capital		7,173,334
Total allocated gross proceeds:	$	10,000,000

ax) In September 2011, an option holder exercised options to purchase shares of the Company's common stock for cash of $22,040 and the Company issued 28,000 shares.

ay) In October 2011, an option holder exercised options to purchase shares of the Company's common stock for cash of $19,200 and the Company issued 80,000 shares.

az) On December 4, 2012 the Company closed on an underwritten public offering to issue and sell 19,130,435 shares of common stock and common stock purchase warrants to purchase up to 10,521,739 shares of common stock. The common stock and warrants were sold in units, consisting of common stock and a warrant to purchase 0.55 shares of common stock, at a price of $0.33 per share, and the warrants have an exercise price of $0.472 per share. Pursuant to the underwriting agreement, the Company granted the Underwriters a 45-day option to purchase an additional 2,869,565 shares of Common Stock and warrants to purchase 1,578,261 shares of Common Stock. On December 4, 2012, the underwriters partially exercised this option, and 869,565 units, consisting of 869,565 shares and 478,261 warrants were issued. On December 10, 2012, the underwriters exercised the remaining overallotment option, and the Company issued 2,000,000 units, consisting of 2,000,000 shares and 1,100,000 warrants. The total gross proceeds of the offering was $7,260,000. The warrants issued are exercisable on the closing date until the five-year anniversary of the closing date, and were recorded as liabilities at fair value.

The closing costs of $977,434 included 880,000 warrants valued at $163,096, and $814,338 for underwriter's discounts and professional and other fees. Based upon the estimated fair value of the stock and warrants in the units, the Company allocated $332,108 to financing expense, and $645,326 as stock issuance costs.

A summary of the allocation of the proceeds of the offering is shown below:

Gross Proceeds:	$	7,260,000
Allocated to liabilities:		
Warrant liabilities		2,637,216
Less: Warrants allocated to placement agent		(163,096)
Total allocated to liabilities		2,474,120
Allocated to equity:		
Common stock and additional paid-in capital		4,785,880
Total allocated gross proceeds:	$	7,260,000

ba) On December 7, 2012, the Company issued 2,083,333, shares of common stock at a purchase price of $0.36 per share to an institutional investor for gross proceeds of $750,000. The total stock issuance costs were $63,658.

11. Stock-Based Compensation

On August 5, 2003, the Company established a stock option plan (the "Plan"). Under the Plan, the Company grants stock options to key employees, directors and consultants of the Company. For all grants prior to September 12, 2005 and grants to employees of the Company after September 12, 2005, the vesting period is 30% on the first anniversary of the grant date, an additional 30% on the second anniversary and the remaining 40% on the third anniversary. Options expire between five and ten years from the date of grant.

For grants to non-employee consultants of the Company after September 12, 2005, the vesting period is between one to three years, subject to the fulfillment of certain conditions in the individual stock option grant agreements, or 100% upon the occurrence of certain events specified in the individual stock option grant agreements. Options authorized for issuance under the Plan total 17,000,000 after giving effect to an amendment to the Plan approved at the Annual Meeting of the Stockholders of the Company on June 2, 2006. At December 31, 2012, 8,578,000 shares of common stock were available for issuance.

Prior to adoption of the Plan, the Company made restricted stock grants. During 2003 all existing restricted stock grants were converted to stock options. The converted options maintained the same full vesting period as the original restricted stock grants.

Accounting for Employee Awards

The Company's results of operations for the years ended December 31, 2012 and 2011 include share-based employee compensation expense totaling $202,037 and $597,637 respectively. Such amounts have been included in the statement of operations in general and administrative and research and development expenses. No income tax benefit has been recognized in the statement of operations for share-based compensation arrangements as the Company has provided for a 100% valuation allowance on its deferred tax assets.

Employee stock option compensation expense is the estimated fair value of options granted amortized on a straight-line basis over the requisite vesting service period for the entire portion of the award.

Accounting for Non-Employee Awards

Stock compensation expenses related to non-employee options were $28,950 and $40,970 for the years ended December 31, 2012 and 2011, respectively. Such amounts have been included in the statement of operations in general and administrative and research and development expenses.

Summary of Stock Compensation Expense Recognized

Total stock-based compensation recognized by the Company in the years ended December 31, 2012 and 2011, and the period from inception (March 19, 2001) to December 31, 2012 is as follows:

	Year Ended December 31,		Cumulative from March 19, 2001 (Inception) to
	2012	2011	December 31, 2012
Statement of operations line item:			
General and administrative:			
Payroll	$ **126,029**	$ 501,884	$ 2,621,429
Consulting and other professional fees	**23,932**	26,566	810,455
Research and development:			
Payroll	**76,008**	95,753	1,048,057
Consulting and other professional fees	**5,018**	14,404	1,328,675
Total	$ **230,987**	$ 638,607	$ 5,808,616

Summary of Stock Option Transactions

There were 170,000 stock options granted at an exercise price of $0.38 with a fair value of $47,589 and 75,000 stock options granted at an exercise price of $0.48 with a fair value of $26,835 during the year ended December 31, 2012. There were 130,000 stock options granted at an exercise price of $1.84 and a fair value of $180,326, 100,000 stock options granted at an exercise price of $1.25 and a fair value of $91,334, 20,000 stock options granted at an exercise price of $1.22 and a fair value of $17,915, 150,000 stock options granted at an exercise price of $1.12 and a fair value of $121,595, and 50,000 stock options granted at an exercise price of $0.38 and a fair value of $14,150 during the year ended December 31, 2011.

The fair value of options at the date of grant was estimated using the Black-Scholes option pricing model. The Company took into consideration guidance under ASC 718, “Compensation-Stock Compensation” and SAB 107 when reviewing and updating assumptions. The expected volatility is based upon historical volatility of the Company’s stock. The expected term is based upon the simplified method as allowed under SAB 107.

The assumptions made in calculating the fair values of options are as follows:

	Year Ended December 31,	
	2012	2011
Black-Scholes weighted average assumptions		
Expected dividend yield	**0%**	0%
Expected volatility	**98-101%**	96-101%
Risk free interest rate	**0.62-0.89%**	0.11-2.29%
Expected term (in years)	**5 years**	5 years

The following table summarizes the employee and non-employee share-based transactions:

	2012		2011	
	Number of Options	**Weighted Average Exercise Price**	Number of Options	Weighted Average Exercise Price
Outstanding at January 1	**7,646,795**	**$ 1.05**	8,076,795	$ 1.01
Granted	**245,000**	**0.41**	450,000	1.28
Exercised	**-**	**-**	(183,000)	0.32
Cancelled	**(150,000)**	**1.15**	(697,000)	0.91
Outstanding at December 31	**7,741,795**	**$ 1.03**	7,646,795	$ 1.05

The following table summarizes information about stock options outstanding as of December 31, 2012 and December 31, 2011.

	Number of Options	**Weighted Average Exercise Price**	**Weighted Average Remaining Contractual Term**	**Aggregate Intrinsic Value**
Outstanding at December 31, 2012	**7,741,795**	**$ 1.03**	**3.9 years**	**$ 41,706**
Exercisable at December 31, 2012	**7,176,795**	**$ 1.04**	**3.5 years**	**$ 41,706**
Outstanding at December 31, 2011	7,646,795	$ 1.05	4.8 years	$ 83,611
Exercisable at December 31, 2011	6,911,795	$ 1.02	4.4 years	$ 83,611

The total intrinsic value of the options exercised was $163,450 for year ended December 31, 2011. There were no options exercised during the year ended December 31, 2012. The weighted average fair value of the options vested was $0.92 and $0.70 for the year ended December 31, 2012 and 2011, respectively.

A summary of the Company's unvested shares as of December 31, 2012 and changes during the year ended December 31, 2012 is presented below:

	2012	
	Number of Options	**Weighted Average Fair Value at Grant Date**
Unvested at January 1, 2012	735,000	**$** 0.92
Granted	245,000	**$** 0.30
Vested	(304,000)	**$** 0.92
Cancelled	(111,000)	**$** 0.89
Unvested at December 31, 2012	565,000	**$** 0.66

As of December 31, 2012 and 2011, there was $172,532 and $397,593 of total unrecognized compensation cost, respectively, related to all unvested stock options, which is expected to be recognized over a weighted average vesting period of 1.0 years and 1.6 years, respectively.

12. Warrants

As of December 31, 2012, warrants to purchase 21,656,142 shares were outstanding, having exercise prices ranging from $0.41 to $1.90 and expiration dates ranging from August 8, 2013 to December 4, 2017.

	2012		2011	
	Number of warrants	**Weighted average exercise price**	Number of warrants	Weighted average exercise price
Balance, January 1	**8,676,142**	**$ 1.53**	5,624,583	$ 1.48
Issued during the period	**12,980,000**	**0.47**	3,541,666	$ 1.50
Exercised during the period	**-**	**-**	(333,959)	$ 0.95
Expired during the period	**-**	**-**	(156,148)	$ 0.82
Balance, December 31	**21,656,142**	**$ 0.89**	8,676,142	$ 1.53

At December 31, 2012 and 2011, the average remaining contractual life of the outstanding warrants was 3.8 and 3.2 years, respectively

The warrants, which were issued to investors in the December 2007, March 2008, May 2009, October 2009, June 2010, March 2011 and December 2012 offerings, 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 principally of cash or 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. Due to this contingent redemption provision, the warrants require liability classification in accordance with ASC 480 and are recorded at fair value. In addition, the warrants issued in the May 2009, October 2009, June 2010, March, 2011 and December 2012 offerings contain a cashless exercise provision that is exercisable only in the event that a registration statement is not effective, which provision may not be operative if an effective registration statement is not available because of an exemption under the U.S. Securities laws may not be available to issue unregistered shares. As a result, net cash settlement may be required.

ASC 820 provides requirements for disclosure of liabilities that are measured at fair value on a recurring basis in periods subsequent to the initial recognition. Fair values for warrants are determined using the Binomial Lattice ("Lattice") valuation technique. The Lattice model provides for dynamic assumptions regarding volatility and risk-free interest rates within the total period to maturity. Accordingly, within the contractual term, the Company provided multiple date intervals over which multiple volatilities and risk free interest rates were used. These intervals allow the Lattice model to project outcomes along specific paths which consider volatilities and risk free rates that would be more likely in an early exercise scenario.

Significant assumptions are determined as follows:
Trading market values—published trading market values;
Exercise price—Stated exercise price;
Term—remaining contractual term of the warrant;
Volatility—Historical trading volatility for periods consistent with the remaining terms;
Risk-free rate—Yields on zero coupon government securities with remaining terms consistent with the remaining terms of the warrants.

Due to the fundamental transaction provision, which could provide for early redemption of the warrants, the model also considered the probability the Company would enter into a fundamental transaction during the remaining term of the warrant. Since the Company is still in its development stage and is not yet achieving positive cash flow, management believes the probability of a fundamental transaction occurring over the term of the warrant is unlikely and therefore estimates the probability of entering into a fundamental transaction to be 5%. For valuation purposes, the Company also assumed that if such a transaction did occur, it was more likely to occur towards the end of the term of the warrants.

The warrants issued in December 2007 and March 2008 are not only subject to traditional anti-dilution protection, such as stock splits and dividends, but they are also subject to down-round anti-dilution protection. Accordingly, if the Company sells common stock or common stock indexed financial instruments below the stated exercise price, the exercise price related to these warrants will adjust to that lower amount. The Lattice model used to value the warrants with down-round anti-dilution protection provides for multiple, probability-weighted scenarios at the stated exercise price and at five additional decrements/scenarios on each valuation date in order to encompass the value of the anti-dilution provisions in the estimate of fair value of the warrants. Calculations were performed at the stated exercise price and at five additional decrements/scenarios on each valuation date. The calculations provide for multiple, probability-weighted scenarios reflecting decrements that result from declines in the market prices. Decrements are predicated on the trading market prices in decreasing ranges below the contractual exercise price. For each valuation date, multiple Binomial Lattice calculations were performed which were probability weighted by considering both the Company's (i) historical market pricing trends, and (ii) an outlook for whether or not the Company may need to issue equity or equity-indexed instruments in the future with a price less than the current exercise price.

The significant unobservable inputs used in the fair value measurement of the warrants include management's estimate of the probability that a fundamental transaction may occur in the future. Significant increases (decreases) in the probability of occurrence would result in a significantly higher (lower) fair value measurement.

The following table summarizes the fair value of the warrants as of the respective balance sheet or transaction dates:

	Fair Value as of:		
Warrant Issuance:	**December 31, 2012**	December 31, 2011	Transaction Date
December 18, 2007 financing	**$ -**	$ -	$ 1,392,476
March 20, 2008 financing	**-**	-	190,917
June 5, 2009 financing:			
Series I warrants	**-**	-	707,111
Series II warrants	**-**	-	1,315,626
Series III warrants	**35,311**	89,756	1,306,200
Warrants to placement agent	**3,489**	8,893	122,257
October 23, 2009 financing:			
Warrants to institutional investors	**73,454**	129,221	1,012,934
Warrants to placement agent	**41**	714	101,693
June 30, 2010 financing			
Warrants to institutional investors	**12,200**	89,800	1,800,800
Warrants to placement agent	**20**	2,320	180,080
March 31, 2011 financing:			
Warrants to institutional investors	**306,333**	544,000	2,826,666
Warrants to placement agent	**83**	4,021	97,667
December 4, 2012 financing:			
Warrants to institutional investors	**2,263,910**	-	2,474,120
Warrants to placement agent	**147,224**	-	163,096
Total:	**$ 2,842,065**	$ 868,725	$ 13,691,643

The following table summarizes the number of shares indexed to the warrants as of the respective balance sheet or transaction dates:

	Number of Shares indexed as of:		
Warrant Issuance	**December 31, 2012**	December 31, 2011	Transaction Date
December 18, 2007 financing	**-**	-	1,078,579
March 20, 2008 financing	**-**	-	128,572
June 5, 2009 financing:			
Series I warrants	**-**	-	2,222,222
Series II warrants	**-**	-	1,866,666
Series III warrants	**1,555,555**	1,555,555	1,555,555
Warrants to placement agent	**132,143**	132,143	142,857
October 23, 2009 financing:			
Warrants to institutional investors	**1,228,333**	1,228,333	2,125,334
Warrants to placement agent	**18,445**	18,445	245,932
June 30, 2010 financing			
Warrants to institutional investors	**2,000,000**	2,000,000	2,000,000
Warrants to placement agent	**200,000**	200,000	200,000
March 31, 2011 financing:			
Warrants to institutional investors	**3,333,333**	3,333,333	3,333,333
Warrants to placement agent	**208,333**	208,333	208,333
December 4, 2012 financing:			
Warrants to institutional investors	**12,100,000**	-	12,100,000
Warrants to placement agent	**880,000**	-	880,000
Total:	**21,656,142**	8,676,142	28,087,383

The assumptions used in calculating the fair values of the warrants are as follows:

December 18, 2007 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$ -**	$ -	$ 1.75
Estimated future volatility	**-**	-	143 %
Dividend	**-**	-	-
Estimated future risk-free rate	**-**	-	3.27 %
Equivalent volatility	**-**	-	106 %
Equivalent risk-free rate	**-**	-	3.26 %
Estimated additional shares to be issued upon dilutive event	**-**	-	98,838

March 20, 2008 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$ -**	$ -	$ 2.14
Estimated future volatility	**-**	-	142 %
Dividend	**-**	-	-
Estimated future risk-free rate	**-**	-	1.95 %
Equivalent volatility	**-**	-	97 %
Equivalent risk-free rate	**-**	-	1.31 %
Estimated additional shares to be issued upon dilutive event	**-**	-	7,479

June 5, 2009 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$ 0.31**	$ 0.38	$ 1.14
Estimated future volatility	**100 %**	98-100%	100 %
Dividend	**-**	-	-
Estimated future risk-free rate	**0.16 %**	0.38 %	0.63-4.31%
Equivalent volatility	**92 %**	80-81%	103-117%
Equivalent risk-free rate	**0.11 %**	0.14 %	0.20-1.44%

October 23, 2009 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$ 0.31**	$ 0.38	$ 0.69
Estimated future volatility	**100 %**	98-100%	100 %
Dividend	**-**	-	-
Estimated future risk-free rate	**0.16-0.34%**	0.38-0.58%	2.63-3.80%
Equivalent volatility	**74-93%**	72-81%	98-99%
Equivalent risk-free rate	**0.06-0.13%**	0.08-0.16%	0.93-1.16%

June 30, 2010 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$ 0.31**	$ 0.38	$ 1.43
Estimated future volatility	**100 %**	86-100%	100 %
Dividend	**-**	-	-
Estimated future risk-free rate	**0.16-0.34%**	0.38-0.58%	1.78 %
Equivalent volatility	**74-75%**	72-79%	98 %
Equivalent risk-free rate	**0.06%**	0.08-0.14%	0.59 %

March 31, 2011 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$ 0.31**	$ 0.38	$ 1.18
Estimated future volatility	**93-100%**	87-100%	100 %
Dividend	**-**	-	-
Estimated future risk-free rate	**0.16-0.58%**	0.38-1.54%	1.32-3.64%
Equivalent volatility	**74-89%**	72-90%	79-96%
Equivalent risk-free rate	**0.06-0.23%**	0.08-0.28%	0.39-1.09%

December 4, 2012 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$ 0.31**	$ -	$ 0.30-0.33
Estimated future volatility	**85-100%**	-	100 %
Dividend	**-**	-	-
Estimated future risk-free rate	**0.58-1.26%**	-	0.52-1.065%
Equivalent volatility	**88%**	-	88-90%
Equivalent risk-free rate	**0.21-0.32%**	-	0.22-0.31%

Changes in the fair value of the warrant liabilities, carried at fair value, as reported as "unrealized gain on fair value of warrants" in the statement of operations:

	Year Ended December 31, 2012	Year Ended December 31, 2011	Cumulative from March 19, 2001 (Inception) to December 31, 2012
December 18, 2007 financing	**$ -**	-$	-$ 50,722
March 20, 2008 financing	**-**	92,704	160,063
June 5, 2009 financing:			
Series I warrants	**-**	-	707,111
Series II warrants	**-**	-	(2,191,175)
Series III warrants	**54,445**	661,266	1,270,889
Warrants to placement agent	**5,404**	60,139	104,388
Derivative loss at inception	**-**	-	(328,937)
October 23, 2009 financing:			
Warrants to institutional investors	**55,767**	565,156	(109,760)
Warrants to placement agent	**673**	(102,487)	(135,979)
June 30, 2010 financing			
Warrants to institutional investors	**77,600**	1,017,000	1,788,600
Warrants to placement agent	**2,300**	108,360	180,060
March 31, 2011 financing:			
Warrants to institutional investors	**237,667**	2,282,666	2,520,333
Warrants to placement agent	**3,938**	93,646	97,584
December 4, 2012 financing:			
Warrants to institutional investors	**210,210**		210,210
Warrants to placement agent	**15,872**		15,872
Total:	**$ 663,876**	$ 4,778,450	$ 4,339,981

13. Put feature on Common Stock

The Anti-dilution provision extended in the December 2007 and March 2008 financings is a financial instrument separate and apart from the share. It is a freestanding written put (a put on the Company's common stock). As an enterprise value put, the contracts' value moves inversely with the value of the underlying common stock which, under ASC 480, is not consistent with the general concepts or criterion for equity classified financial instruments. Accordingly, the written put was required to be classified as a liability under ASC 480 and recorded at fair value each reporting period, while the common stock achieved equity classification. Changes in the fair value of the anti-dilution make-whole provision are reported as "unrealized gain on fair value of put feature on common stock."

The anti-dilution make-whole provisions associated with the common stock, were valued using a probability-weighting of put values provided by the Lattice model. Additional value would result from the put upon an increase in the exercise price or upon decrease of the trading market price in the future. Since the exercise price is based on the actual sales price of the stock issued, it is not subject to adjustment unless there is an actual dilutive event. Therefore, the mechanism for determining the value of the put was to adjust the stock price input into the Lattice model based on the Company's estimated future stock price. A Random Walk Brownian Motion Stochastic Process ("Brownian") technique was used to estimate the market price at several points in the future (e.g. at inception, 6 months, 12 months, 18 months and 24 months) over the term of the put to determine if the stock price will be expected to decrease over the related interval of time. Brownian is a continuous stochastic process that is widely used in financing for modeling random behavior that evolves over time, and a stochastic process is a sequence of events or paths generated by probabilistic laws. At each interval, the Brownian technique was run and the simulation returned the mean stock price (the "expected stock price").

Expected stock prices returned from the stochastic model were then input into the Lattice model to provide a put value at each of the expected prices and these values were probability weighted to determine the overall fair value of the anti-dilution make-whole provision. The term was based on the remaining term of the put (two years at inception) and the inputs for volatility and interest rate were based on projected volatility and interest rate in the future over the remaining term.

The following table summarizes the fair value of the Anti-dilution provision recorded at fair value as liabilities:

Fair Values:	**December 31, 2012**	December 31, 2011	Transaction Date
December 18, 2007 financing	**$ -**	**$ -**	$ 4,401,169
March 20, 2008 financing	**-**	-	553,569
Total:	**$ -**	**$ -**	$ 4,954,738

The following table summarizes the number of shares indexed to the Anti-dilution provision at the respective balance sheet or transaction dates:

Number of Shares indexed:	**December 31, 2012**	December 31, 2011	Transaction Date
December 18, 2007 financing	**-**	-	4,857,159
March 20, 2008 financing	**-**	-	642,858
Total:	**-**	-	5,500,017

The following table reflects the fair values of the common stock anti-dilution make-whole provisions recorded as liabilities and significant assumptions used in the valuation:

December 18, 2007 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$** -	-$	1.75
Estimated future stock price	-	-	$0.98-$1.75
Estimated future volatility	-	-	143%
Dividend	-	-	-
Estimated future risk-free rate	-	-	3.14%

March 20, 2008 financing:	**December 31, 2012**	December 31, 2011	Transaction Date
Trading market prices	**$** -	-$	2.14
Estimated future stock price	-	-	$1.36-$2.10
Estimated future volatility	-	-	142%
Dividend	-	-	-
Estimated future risk-free rate	-	-	1.85%

Since the Anti-dilution provisions expired on December 18, 2009 and March 20, 2010, there is no liability as of December 31, 2012, or no changes in the fair value for the years ended December 31, 2012 and 2011.

Changes in the fair value of the Anti-dilution provision, carried at fair value, as reported as "unrealized gain on fair value of put feature on common stock" in the statement of operations:

	Year Ended December 31, 2012	Year Ended December 31, 2011	Cumulative from March 19, 2001 (Inception) to December 31, 2012
December 18, 2007 financing	**$** -	$ -	$ 2,148,418
March 20, 2008 financing	-	-	167,121
Total:	**$** -	**$** -	$ 2,315,539

14. Income Taxes

No provision for Federal and State income taxes was required for the years ended December 31, 2012 and 2011 due to the Company's operating losses and increased deferred tax asset valuation allowance. At December 31, 2012 and 2011, the Company has unused net operating loss carry-forwards of approximately $61,780,000 and $55,394,000 which expire at various dates through 2032. Some of this amount may be subject to annual limitations under certain provisions of the Internal Revenue Code related to "changes in ownership."

As of December 31, 2012 and 2011, the deferred tax assets related to the aforementioned carry-forwards have been fully offset by valuation allowances, since significant utilization of such amounts is not presently expected in the foreseeable future.

Deferred tax assets and valuation allowances consist of:

	December 31, 2012	December 31, 2011
Net Operating Loss Carryforwards	**$ 24,094,200**	$ 21,603,700
Stock Option Expense	**1,843,000**	1,753,400
Book tax differences on assets and liabilities	**352,500**	348,600
Valuation Allowance	**(26,289,700)**	(23,705,700)
Net Deferred Tax Assets	**$ -**	$ -

The Company files income tax returns in the U.S. Federal and Maryland state jurisdictions. Tax years for fiscal 2009 through 2012 are open and potentially subject to examination by the Federal and Maryland state taxing authorities.

15. Commitments and Contingencies

a) The Company has contracted with various vendors to provide research and development services. The terms of these agreements usually require an initial fee and monthly or periodic payments over the term of the agreement, ranging from 2 months to 36 months. The costs to be incurred are estimated and are subject to revision. As of December 31, 2012, the total estimated cost to be incurred under these agreements was approximately $19,705,682 and the Company had made payments totaling $17,875,371 since inception under the terms of the agreements. All of these agreements may be terminated by either party upon appropriate notice as stipulated in the respective agreements.

b) The Company and three of its key executives entered into employment agreements, which were amended on September 9, 2010 and will expire on September 9, 2013. The agreements result in annual commitments for each key executive of $350,000, $250,000 and $200,000, respectively.

c) On June 22, 2009, the Company entered into a License Agreement with Korea Research Institute of Chemical Technology ("KRICT") to acquire the rights to all intellectual properties related to Quinoxaline-Piperazine derivatives that were synthesized under a Joint Research Agreement. The initial license fee was $100,000, all of which was paid as of December 31, 2009. The agreement with KRICT calls for a one-time milestone payment of $1,000,000 within 30 days after the first achievement of marketing approval of the first commercial product arising out of or in connection with the use of KRICT's intellectual properties. As of December 31, 2012, the milestone has not occurred.

d) On June 29, 2009, the Company signed a five year commercial lease agreement for 5,466 square feet of office space in Rockville, Maryland commencing on June 29, 2009. The lease agreement requires annual base rent with increases over the next five years. Under the lease agreement, the Company pays its allocable portion of real estate taxes and common area operating charges. Rent paid under the Company's lease during the years ended December 31, 2012 and 2011 was $158,835 and $148,593, respectively.

Future rental payments over the next five years and thereafter are as follows:

2013	162,806
2014	82,408
Total	**$ 245,214**

In connection with the lease agreement, the Company issued a letter of credit of $100,000 in favor of the lessor. The Company has restricted cash equivalents of the same amount for the letter of credit. On August 2, 2010, and July 1, 2011 the letter of credit was amended and reduced to $50,000 and $37,500, respectively.

e) On September 21, 2009, the Company closed on a securities purchase agreement with Teva, under which Teva purchased 3,102,837 shares of our common stock for $3.5 million. Contemporaneous with the execution and delivery of this agreement, the parties executed a RELO pursuant to which the Company agreed to use $2,000,000 from the gross proceeds of the issuance and sale of shares to Teva to fund a research and development program for the pre-clinical development of RX-3117. On January 19, 2011, the Company entered into a second amendment to the securities purchase agreement (the "Second Amendment") in which Teva purchased 2,334,515 shares of the common stock of the Company for gross proceeds of $3,950,000, which the Company agreed to use for the further preclinical development of RX-3117. On December 7, 2012, the Teva exercised its option to purchase $750,000 of common stock, and the Company issued Teva 2,083,333 shares. This constituted the third and final closing agreed to in the securities purchase agreement, and the use of these funds is not restricted by the Company. On December 27, 2012 the Company received funds from Teva in accordance with a second amendment to the RELO agreement, entered into on November 27, 2012 in which Teva has provided the Company with an additional $926,000 of research funding restricted for the development of RX-3117. The Company did not issue equity for this transaction.

The table below summarizes the investments made under the securities purchase agreement and RELO:

Date of Investment	Investment Amount	Shares Issued	Proceeds Remaining in Restricted Cash as of 12/31/12	Deferred Research and Development Arrangement Balance at 12/31/12
9/21/2009	$ 3,500,000	3,102,837	$ -	$ -
1/19/2011	3,950,000	2,334,515	178,301	-
12/7/2012	750,000	2,083,333	-	-
12/27/2012	926,000	-	876,000	876,000
Total	$ 9,126,000	7,520,685	$ 1,054,301	$ 876,000

f) The Company has a 401(k) plan established for its employees. The Company elected to match 100% of the first 3% of the employee's compensation plus 50% of an additional 2% of the employee's deferral. Expense related to this matching contribution aggregated $65,686 and $66,162 for the year ended December 31, 2012, and 2011, respectively.

g) On May 30, 2012 and June 22, 2011, the Company signed a one year renewal to use lab space commencing on July 1, 2012 and 2011, respectively. The lease requires monthly rental payments of $4,554. Rent paid under the Company's lease during the years ended December 31, 2012 and 2011 was $54,648.

16. Fair Value Measurements

ASC 820 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, not adjusted for transaction costs. ASC 820 also establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels giving the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3).

The three levels are described below:

Level 1 Inputs — Unadjusted quoted prices in active markets for identical assets or liabilities that is accessible by the Company;

Level 2 Inputs — Quoted prices in markets that are not active or financial instruments for which all significant inputs are observable, either directly or indirectly;

Level 3 Inputs — Unobservable inputs for the asset or liability including significant assumptions of the Company and other market participants.

The following tables present assets and liabilities that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy. The fair value hierarchy has three levels based on the reliability of the inputs used to determine fair value.

	Fair Value Measurements at December 31, 2012			
	Total	Level 1	Level 2	Level 3
Assets:				
Restricted Cash	**$ 1,091,801**	**$ 1,054,301**	**$ 37,500**	**$ -**
Marketable Securities	**100,000**	**100,000**	**-**	**-**
Total Assets:	**$ 1,191,801**	**$ 1,154,301**	**$ 37,500**	**$ -**
Liabilities:				
Warrant Liabilities	**$ 2,842,065**	**-**	**-**	**$ 2,842,065**

	Fair Value Measurements at December 31, 2011			
	Total	Level 1	Level 2	Level 3
Assets:				
Restricted Cash	$ 1,431,765	$ 1,394,265	$ 37,500	$ -
Marketable Securities	1,950,000	1,950,000	-	-
Total Assets:	$ 3,381,765	$ 3,344,265	$ 37,500	$ -
Liabilities:				
Warrant Liabilities	$ 868,725	-	-	$ 868,725

As of December 31, 2012 and 2011, the Company's restricted cash equivalents are comprised of the following:

a) Money market funds valued at the net asset value of shares held by the Company and is classified within level 1 of the fair value hierarchy;

b) Certificate of deposit valued based upon the underlying terms of a letter of credit, as disclosed in Note 15, and classified within level 2 of the fair value hierarchy.

Marketable securities consist of state authority and municipal security fund bonds which are valued at fair value and classified within level 1 of the fair value hierarchy.

The fair value methodology for the warrant liabilities is disclosed in Note 12.

The carrying amounts reported in the financial statements for cash and cash equivalents (Level 1), note receivable (Level 2), prepaid expenses, and other current assets and accounts payable and accrued expenses approximate fair value because of the short term maturity of these financial instruments.

The following table sets forth a reconciliation of changes in the years ended December 31, 2012 and 2011 in the fair value of the liabilities classified as level 3 in the fair value hierarchy:

	Warrant Liabilities	Total Level 3 Liabilities
Balance at January 1, 2012	$ 868,725	$ 868,725
Additions	2,637,216	2,637,216
Unrealized gains, net	(663,876)	(663,876)
Unrealized gains on expiration	-	-
Transfers out of level 3	-	-
Balance at December 31, 2012	$ 2,842,065	$ 2,842,065

	Warrant Liabilities	Total Level 3 Liabilities
Balance at January 1, 2011	$ 2,966,710	$ 2,966,710
Additions	2,924,333	2,924,333
Unrealized gains, net	(4,739,881)	(4,739,881)
Unrealized gains on expiration	(38,569)	(38,569)
Transfers out of level 3	(243,868)	(243,868)
Balance at December 31, 2011	$ 868,725	$ 868,725

Additions consist of the fair value of warrant liabilities upon issuance. Transfers out of Level 3 for warrant liabilities consist of warrant exercises. The Company's policy is to recognize transfers in and transfers out as of the actual date of the event or change in circumstance that caused the transfer. There were no significant transfers in and out of Levels 1 and 2 for the years ended December 31, 2012 and 2011.

EXHIBIT INDEX

3.1	Amended and Restated Certificate of Incorporation, filed as Appendix G to the Company's Definitive Proxy Statement on Schedule 14A (File No. 000-50590) dated April 29, 2005, is incorporated herein by reference.
3.2	Amended and Restated Bylaws, filed as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on March 26, 2010, is incorporated herein by reference.
4.1	Specimen Certificate for the Company's Common Stock, par value $.0001 per share, filed as Exhibit 4.3 to the Company's Registration Statement on Form S-8 (File No. 333-129294) dated October 28, 2005, is incorporated herein by reference.
4.2	Form of Senior Debt Securities Indenture, filed as Exhibit 4.3 to the Company's Registration Statement on Form S-3 dated June 22, 2011, is incorporated herein by reference.
4.3	Form of Subordinated Debt Securities Indenture, filed as Exhibit 4.4 to the Company's Registration Statement on Form S-3 dated June 22, 2011 is incorporated herein by reference.
*10.1.1	Rexahn Pharmaceuticals, Inc. Stock Option Plan, as amended, filed as Exhibit 4.4 to the Company's Registration Statement on Form S-8 (File No. 333-129294) dated October 28, 2005, is incorporated herein by reference.
*10.1.2	Form of Stock Option Grant Agreement for Employees, filed as Exhibit 4.5.1 to the Company's Registration Statement on Form S-8 (File No. 333-129294) dated October 28, 2005, is incorporated herein by reference.
*10.1.3	Form of Stock Option Grant Agreement for Non-Employee Directors and Consultants, filed as Exhibit 4.5.2 to the Company's Registration Statement on Form S-8 (File No. 333-129294) dated October 28, 2005, is incorporated herein by reference.
*10.2	Employment Agreement, dated as of September 9, 2010, by and between Rexahn Pharmaceuticals, Inc. and C. H. Ahn, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 10, 2010, is incorporated herein by reference.
*10.3	Employment Agreement, dated as of September 9, 2010, by and between Rexahn Pharmaceuticals, Inc. and T. H. Jeong, filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on September 10, 2010, is incorporated herein by reference.
10.4	Lease Agreement, dated June 5, 2009, by and between Rexahn Pharmaceuticals, Inc. and The Realty Associates Fund V, L.P., filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, is incorporated herein by reference
*10.5	Employment Agreement, dated as of September 9, 2010, by and between Rexahn Pharmaceuticals, Inc. and Rakesh Soni, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on September 10, 2010, is incorporated herein by reference.
10.6	Securities Purchase Agreement, dated as of May 19, 2009 by and between Rexahn Pharmaceuticals, Inc. and the purchaser signatory thereto, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 20, 2009, is incorporated herein by reference.
10.7	Form of Warrant for the Company's Series I, II, and III Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on May 20, 2009, is incorporated herein by reference.
10.8	Research and Exclusive License Option Agreement, dated as of June 26, 2009, by and between Rexahn Pharmaceuticals, Inc. and Teva Pharmaceutical Industries Limited, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 21, 2009, is incorporated herein by reference.
10.9	Securities Purchase Agreement, dated as of June 26, 2009, by and between Rexahn Pharmaceuticals, Inc. and Teva Pharmaceutical Industries Limited (the "Teva Securities Purchase Agreement"), filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on September 21, 2009, and Amendment No. 1 to the Teva Securities Purchase Agreement, filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on September 21, 2009, are incorporated herein by reference.
10.10	Securities Purchase Agreement, dated as of October 19, 2009, by and between Rexahn Pharmaceuticals, Inc. and the purchasers signatory thereto, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K, filed on October 20, 2009, is incorporated herein by reference.

10.11	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on October 20, 2009, is incorporated herein by reference.
10.12	Securities Purchase Agreement, dated as of June 28, 2010 by and between Rexahn Pharmaceuticals, Inc. and the purchasers signatory thereto, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K, filed on June 29, 2010, is incorporated herein by reference.
10.13	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 29, 2010, is incorporated herein by reference.
10.14	Amendment No. 2 to the Teva Securities Purchase Agreement, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 20, 2011, is incorporated herein by reference.
10.15	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 30, 2011, is incorporated herein by reference.
10.16	Amendment No. 2 to the Research and Exclusive License Option Agreement, dated as of November 27, 2012, by and between Rexahn Pharmaceuticals, Inc. and Teva Pharmaceutical Industries Limited, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 27, 2012, is incorporated herein by reference.
10.17	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 30, 2012, is incorporated herein by reference.
10.18	Form of Warrant for the Company's Common Stock Purchase Warrants, filed as Exhibit 4.2 to the Company's Current Report on Form 8-K filed on November 30, 2012 is incorporated herein by reference.
14	Code of Ethics and Business Conduct, filed as Exhibit 14 to the Company's , Annual Report on 10-K for the fiscal year ended December 31, 2008, filed on March 16, 2009, is incorporated herein by reference.
16	Letter of Lazar Levine & Felix LLP dated February 27, 2009, filed as Exhibit 16.1 to the Company's Amended Current Report on Form 8-K filed on March 2, 2009, is incorporated herein by reference.
23	Consent of ParenteBeard LLC, independent registered public accounting firm.
24	Power of Attorney.
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a).
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a).
32.1	Certification of Chief Executive Officer of Periodic Report Pursuant to 18 U.S.C. Section 1350.
32.2	Certification of Chief Financial Officer of Periodic Report Pursuant to 18 U.S.C. Section 1350.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Calculation Linkbase
101.DEF	XBRL Taxonomy Definition Linkbase
101.LAB	XBRL Taxonomy Label Linkbase
101.PRE	XBRL Taxonomy Presentation Linkbase

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* Management contract or compensation plan or arrangement.

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