

A detailed microscopic image of a neuron, showing its cell body (soma) and branching processes (dendrites and axons) in shades of blue and white. The neuron is the central focus, with its complex structure extending across the frame.

2008 Annual Report

Saving Lives through
Innovation

Rexahn Pharmaceuticals



➤ Corporate Profile

Rexahn is a leading clinical stage biopharmaceutical company dedicated to the discovery, development and commercialization of innovative treatments for cancer, central nervous system (CNS) disorders, and other unmet medical needs. Our motto, "Saving Lives Through Innovation," represents the Company's use of scientific innovation to improve the health and wellness of patients. We develop therapies that treat specific disease states, while minimizing side effects in order to help patients regain quality of life during treatment. The Company is committed to becoming a market leader in its therapeutic segments with innovative and first-in-class products that improve quality of life for patients.

Rexahn currently has three Phase II clinical stage drug candidates: Archexin™, Serdaxin™, and Zoraxel™. Our lead anticancer drug candidate, Archexin™ is in clinical trials for renal cell carcinoma (RCC) and pancreatic cancer, and 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. We are currently developing Serdaxin™ for treatment of depression and neurodegenerative disorders. The Phase II clinical trials for Serdaxin™ were initiated in 2008 and are ongoing in 2009 for major depressive disorder (MDD). Serdaxin™ increases availability of neurotransmitters, serotonin and dopamine, with mechanisms different from the current market leaders of reuptake inhibitors such as SSRIs and SNRIs to treat mood disorders derived from both negative mood state and loss of positive mood state. For sexual dysfunction, Zoraxel™ is in Phase II clinical trials for patients with erectile dysfunction (ED) and preliminary results will be released in the second quarter. Zoraxel™ is the first centrally acting dual enhancer of serotonin and dopamine, affecting all three phases of male sexual function, such as sexual arousal, erection and ejaculation.

Rexahn is currently traded on the New York Stock Exchange (NYSE), as a NYSE Amex company, under the symbol "RNN". The company was added to the broad-market Russell 3000 Index as part of Russell Investments' reconstitution of its comprehensive set of U.S. and global equity indexes which occurred in June, 2008. The Russell 3000 Index measures the performance of the largest 3,000 U.S. companies and determines membership for its equity indexes primarily by objective, market-capitalization rankings and style attributes. The Russell 3000 also serves as the U.S. component to the Russell Global Index.



➤ **Corporate Milestones**

Listed on the American Stock Exchange (Amex) and moved to the New York Stock Exchange (NYSE) as a NYSE Amex company

Formation of the Oncology Scientific Advisory Board (SAB) to collaborate on the clinical development planning and strategy for its lead cancer drug candidate, Archexin™

Added to the broad-market Russell 3000 Index as part of Russell Investments' reconstitution of its comprehensive set of U.S. and global equity indexes

Phase II clinical trial of Archexin™, a first-in-class AKT inhibitor, for Renal Cell Carcinoma, 2007-09 and Pancreatic Cancer, 2009

Phase II clinical trial of Zoraxel™, a CNS-acting enhancer, for treatment of ED, 2008

Phase II clinical trial of Serdaxin™, a non-SSRI dual neurotransmitter enhancer, for treatment of major depressive disorder, 2008

Successful development of nano-polymer-based anti-cancer drugs, 2008

Completed Corporate raise of \$8 million through private placement, 2008

➤ **Awards and Recognition**

Awarded MIPS (Maryland Industrial Partnerships) grant, 2008



➤ Pipeline Overview

Oncology

According to the American Cancer Society's Cancer Facts & Figures, cancer is the second leading cause of death among Americans and is responsible for one of every four deaths in the United States. Worldwide, it is predicted that the number of new cancer cases diagnosed will rise to 16 million annually in 2020, with cancer-related deaths reaching 10 million in 2020 (Datamonitor).



Oncology Drug Candidates

Rexahn is developing targeted cancer drugs that inhibit cancer cell signal transduction involved in cancer cell survival and progression. We are also developing anti-cancer nanomedicines that potentially offer significant advantages and treatment benefits over conventional chemotherapy, in cancer patients through improved target drug delivery, reduced side effects, and greater treatment effectiveness.

Archexin™: AKT-1 inhibitor. Archexin™ is a first-in-class, potent inhibitor of the Akt-1 protein kinase, which plays a key role in cancer progression by stimulating cell proliferation and cell survival, promoting angiogenesis and being a mechanism for drug resistance. Archexin™ is the first drug that is able to inhibit both activated and native AKT-1, and potentially reverse the drug resistance observed with the protein kinase inhibitors. Phase I clinical trials demonstrated that grade 3 (G3) fatigue was the only dose limiting toxicity. No significant hematological effects or other serious adverse events were observed. Phase II clinical trials are ongoing in patients with renal cell carcinoma and pancreatic cancer.

RX-0047-Nano: HIF-1 Transcription Factor Inhibitor. RX-0047-Nano is a first-in-class, nanoliposomal cancer drug that selectively inhibits expression of the HIF-1 transcription factor. HIF-1 is a key signaling molecule in angiogenesis, cancer cell survival and invasion, and radiation resistance. HIF-1 is over-expressed in several human cancers, which is related to the increased mortality. RX-0047-Nano is expected to provide significant clinical benefits including improved efficacy, extended circulation time and reduced drug-related toxicity.



Nano-polymer Anticancer Drugs. A major problem with many cancer drugs is their limited efficacy, severe toxicity and drug resistance. Rexahn's *HPMA-docetaxel* and *HPMA-gemcitabine* are expected to achieve the anticancer effects of docetaxel and gemcitabine, respectively, at much lower dose levels with significantly fewer side effects and may be able to bypass multi-drug resistance.

RX-0183: Small Molecule. RX-0183 possesses distinct molecular pharmacology properties and mechanisms to affect specific signaling proteins involved in cancer cell proliferation, survival, and angiogenesis, and radiation resistance as well. Study results of RX-0183 indicate its potential as a novel small molecule drug that downregulates Akt and c-Fos, and inhibits tumor growth in colon cancer xenograft animal models.

RX-5902: Small molecule microtubule inhibitor. RX-5902 is a novel small molecule anticancer compound that demonstrates significant anti-proliferative activity and belongs to the microtubule-cell cycle inhibitor class. RX-5902 has demonstrated *in vivo* the inhibition of tumor growth in animal xenograft models; potent anti-growth activity in *drug-resistant cancer* cells and animal studies; and delayed tumor growth in *paclitaxel-resistant colon cancer* cells. RX-5902 has potential use in combination therapy with known cancer drugs to improve efficacy and decrease toxicity to cancer patients, and good PK parameters and bioavailability when given by oral route of administration in animal model studies.

RX-3117: Small molecule anti-metabolite nucleoside. RX-3117 is an anti-metabolite nucleoside compound that has the potential to treat gemcitabine-resistant solid tumors of lung (NSCLC), stomach, and colon cancers. *In vitro* RX-3117 inhibited proliferation of human cancer cells derived from several different solid tumors. Further, RX-3117 treated mice xenografted with human colon cancer cells demonstrated significantly reduced tumor mass compared to control animals.



Neuroscience



According to the World Health Organization (WHO), 154 million cases of depression are reported annually, worldwide. Depression affects 45 million people in the U.S. and is a major co-morbidity of other CNS neurodegenerative disorders. Among the \$95 billion in worldwide CNS drug sales, the Parkinson's disease (PD) and depression markets have high unmet needs. Worldwide PD therapeutic sales are forecast to exceed \$2.4 billion in 2013, while antidepressant drugs remain the largest and most mature market of global CNS therapeutics sales. There are 150 million estimated men with erectile dysfunction (ED) worldwide. In the year 2025, it is estimated that 322 million men worldwide will suffer from some degree of sexual dysfunction.

Neuroscience Drug Candidates

Our neuroscience compounds are being developed for neurodegenerative disorders, depression and mood disorders, and to work as a centrally acting therapeutic for the treatment of sexual dysfunction.

Serdaxin™. Serdaxin™ is a dual enhancer of serotonin and dopamine. Based on this novel dual mechanism, it is a potential treatment for multiple CNS disorders where these neurotransmitters are depleted or implicated, such as depression or CNS-based illnesses such as Parkinson's disease and Alzheimer's disease. It has shown neuroprotective effects in the substantia nigra, hippocampus, and nucleus accumbens - areas of the brain involved in neurodegenerative diseases. Studies to date indicate that Serdaxin™ does not cause motor impairment and cognition deficit, and does not result in insomnia, weight gain, nausea or sexual dysfunction that is linked with the current standard of care, which may potentially result in greater medication compliance. Serdaxin™ addresses unmet needs in the depression market by providing potentially faster onset of action, better and broader efficacy and fewer side effects. Phase II clinical trials are currently in progress in patients with major depressive disorder.

Zoraxel™. Zoraxel™ is a centrally acting drug candidate for treatment of erectile dysfunction (ED). It is a dual enhancer of neurotransmitters in the brain that play a key role in sexual activity phases of motivation and arousal, erection and release, and may be the first ED drug to affect all three of these phases of sexual activity. Unlike PDE-5 inhibitors, which are limited to working peripherally with a mechanical vasodilating action and have numerous side effects, Zoraxel™ works in the CNS and has extensive and well-established safety in humans. Phase II clinical trials are ongoing in patients with erectile dysfunction.



➤ Letter from the Chairman

Dear Shareholders:



2008 marked another year of significant progress for Rexahn, and we are very pleased with the clinical and organizational strides that we have made. While the global financial crisis reduced the valuations of many companies in the biopharmaceutical space, we are encouraged by the resilience that companies with solid strategies and diverse clinical pipelines have shown. At Rexahn we have worked diligently to ensure that we have the right strategies and people in place, and we have already begun to see value from these efforts.

We started 2008 off on a very positive note, with the announcement that we had completed \$8 million in a private placement of our common stock. This placement was done with a group of accredited investors in Korea, and the proceeds were used for the continued development of our clinical pipeline. This pipeline includes three of what we see as the most promising compounds in the biopharmaceutical arena, and ones that we feel, once brought to market, will fill a treatment void that has been created by the current standard of care. As many of you know, these compounds are, Zoraxel™ for the treatment of erectile dysfunction (ED), Serdaxin™, for the treatment of major depressive disorder, and Archexin™, for the treatment of renal cell carcinoma and pancreatic cancer.

We have made very good progress with these compounds, with each currently undergoing phase II trials. Archexin™, our flagship drug, is a targeted cancer therapy with the potential to deliver less toxic, more effective, better-tolerated treatment to patients with solid tumors. Archexin stands apart from other targeted or cytotoxic cancer drugs in that it is the first and only inhibitor of both the activated and native forms of Akt, a protein kinase essential for tumor growth and progression. Another key differentiator is Archexin's ability to impact the drug resistance that is developed by treatment with current targeted therapies.

Serdaxin™ is a potential market leading CNS neuroprotective agent, as well as antidepressant. Serdaxin is being developed as an orally administered, extended release tablet for the treatment of depression and anxiety, but based on its novel



actions as a dual serotonin and dopamine enhancer, it is a potential treatment for multiple CNS disorders, such as Parkinson's disease and Alzheimer's disease. Zoraxel is being developed as an orally administered tablet for on-demand use, and acts through the central nervous system that regulates all phases of sexual functions, whereas traditional PDE-5 inhibitors work in the peripheral blood vessels and affect only erectile function. With these promising and potentially lucrative compounds in place, we also worked to ensure that we were making equal progress on the corporate side.

We were very happy to have successfully made the jump to the American Stock Exchange in 2008, as this move exposed us to a new and broader class of investors, and served to augment both our exposure and liquidity. In addition, we were added to the broad-market Russell 3000 Index as part of Russell Investments June 2008 reconstitution of their comprehensive set of U.S. and global equity indexes. We feel that both of these accomplishments represented significant milestones for us, and we intend to build on this momentum.

We have also made a very conscious decision to bolster our internal team, recruiting Rick Soni as Chief Business Officer in July, 2008. Rick joined Rexahn after serving as Director of Commercialization and Business Development at Otsuka America Pharmaceuticals, Inc, and brought over 20 years of marketing and business development experience in pharmaceutical industry to his new role. He has also held variety of management positions at Novartis and Schering-Plough, and we are excited to have someone of Rick's caliber on board with our team.

We were also happy to bring an extremely qualified team of advisors on board during the course of the year. Currently Archexin is guided by our new oncology scientific advisory board, chaired by Margaret Tempero, MD, Deputy Director of the UCSF Helen Diller Family Comprehensive Cancer Center, and former President of the American Society of Clinical Oncology (ASCO).

Finally, in order to ensure that the Rexahn investment story and the promise of our pipeline do not get lost amidst the noise of the global economic slowdown, we retained KCSA Strategic Communications and Base Pair Communications to help us improve our shareholder communications and expand our shareholder base. We recognized that the need for transparent and consistent communication is even greater during a bear market, as quality high growth opportunities become few and



far between. With this in mind, we are working diligently to improve our outreach efforts.

I am confident that the financial markets will right themselves in due course. Until then, we will remain focused on the maintenance and growth of our business, and will remain poised to take advantage of any opportunities that may arise. Our confidence comes from our belief in the strength of our compounds, and the knowledge and skill set of the team that we have put in place.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Chang H. Ahn".

Chang H. Ahn, Ph.D.
Chairman and CEO

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2008

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 number: 000-50590

Rexahn Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

*(State or other jurisdiction of
incorporation or organization)*

11-3516358

*(I.R.S. Employer
Identification No.)*

**9620 Medical Center Drive
Rockville, Maryland**

(Address of principal executive offices)

20850

(Zip Code)

(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, \$.0001 par value per share

NYSE Alternext US

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

None

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 Exchange Act 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 is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "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, 2008, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$116,568,697 based on the closing price reported on NYSE Alternext US.**

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

Class	Outstanding at March 16, 2009
Common Stock, \$.0001 par value per share	56,025,649 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 1, 2009	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. Actual results may differ materially from those projected as a result of certain risks and uncertainties, including but not limited to the following:

- 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.

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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 clinical stage biopharmaceutical company dedicated to the discovery, development, and commercialization of innovative treatments for cancer, central nervous system (CNS) disorders, sexual dysfunction and other unmet medical needs. We develop therapies that make it possible to regain normalcy for patients suffering from disease. We have three drug candidates in Phase II clinical trials this year and six or more other drug candidates in pre-clinical development. We intend to leverage our drug-discovery technologies, scientific expertise and developmental know-how to develop and commercialize targeted cancer drugs with greater clinical benefits for patients and new drugs for the treatment of diseases of the central nervous system and sexual dysfunction. We will continue to identify internally developed compounds as potential drug candidates, as well as assess compounds developed by others and, if necessary, license the rights to these compounds in order to develop and commercialize them as drugs. For a description of our pipeline drug candidates, see "Our Pipeline Drug Candidates" in this Item 1.

Our principal corporate offices are located at 9620 Medical Center Drive, Rockville, Maryland 20850 in Maryland's I-270 technology corridor. Our telephone number is (240) 268-5300.

Rexahn currently has three clinical stage drug candidates: ArchexinTM, SerdaxinTM, and ZoraxelTM. Our lead anticancer drug candidate, ArchexinTM is in Phase II clinical trials for renal cell carcinoma (RCC) and pancreatic cancer, and 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. ArchexinTM received "orphan drug" designation from the U.S. Food and Drug Administration (FDA) for five cancer indications (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.

We are currently developing SerdaxinTM for treatment of depression and neurodegenerative disorders. The Phase II clinical trials for SerdaxinTM are ongoing in 2009 for major depressive disorder (MDD). SerdaxinTM increases availability of neurotransmitters, serotonin and dopamine, with mechanisms different from the current market leaders of reuptake inhibitors such as SSRIs and SNRIs. SerdaxinTM possesses excellent neuroprotective ability as demonstrated against neurotoxin-induced neurodegeneration models and in a Parkinson's model. Considering over 60% of Parkinson's, Alzheimer's, and Multiple Sclerosis patients are suffering from depression as a co-morbidity, SerdaxinTM's effectiveness in both depression and neuroprotection may make it a potential market leader for treatment of the neurological diseases.

We are also developing ZoraxelTM for treatment of sexual dysfunction. ZoraxelTM is in Phase II clinical trials for male erectile dysfunction and preliminary results are expected in early 2009. It is the first centrally acting dual enhancer of serotonin and dopamine, key neurotransmitters affecting all phases of male sexual function, such as sexual arousal, erection and ejaculation.

Further, Rexahn leverages its proprietary nanomedicine research and platforms of TIMES (The Inhibitors of Multi-Expression Signals) and 3D-GOLD (3-D Gateway Of Ligand Discovery) technology, to strengthen and expand its innovative pipelines, which offer greater therapeutic benefits and quality of life for patients.

Company Background

Our company resulted from a merger of Corporate Road Show.Com Inc., originally a New York corporation ("CPRD"), 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." ("Rexahn Pharmaceuticals"), 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, was 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 Chairman, a former U.S. Food and Drug Administration (FDA) reviewer, and National Cancer Institute (NCI) research scientist, helped guide initial research and commercialization efforts in targeted cancer drugs. Our mission is to discover, develop and market innovative therapeutics that address unmet medical needs.

Industry and Disease Markets

Overview

Our research and development focuses on several therapeutic areas that affect the lives of many people—cancer, CNS neurodegenerative disorders (such as Parkinson's disease), depression and related mood disorders, and sexual dysfunction. These disorders can have a debilitating effect on the quality of life for patients who suffer from them. Our strategy is to develop drugs that satisfy unmet needs in the market and help patients regain quality of life by providing innovative therapeutics.

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 2008, the National Institute of Cancer estimated that \$228 billion was spent in medical costs in the United States. Worldwide, it is predicted that the number of new cancer cases diagnosed will rise to 16 million annually in 2020, with cancer-related deaths reaching 10 million in 2020.¹ Global sales of cancer drugs are predicted to grow to \$60 billion by 2010, driven mainly by commercialization of molecular targeted therapies.²

Among the \$95 billion in worldwide CNS drug sales for 2007, the Parkinson's disease (PD) and depression markets have high unmet needs. PD is a progressive neurodegenerative disorder where loss of body control stems from death of CNS dopaminergic neurons in the substantia nigra, resulting in patients being unable to direct or control movements in a normal manner. There are 300,000 estimated U.S. incident cases of PD, and over 1.5 million PD cases worldwide. Worldwide PD therapeutic sales are forecast to exceed \$2.4 billion in 2013. Growth drivers include drug combinations, reformulations, and indication expansions.

Depression affects 45 million people in the U.S. and is a major co-morbidity of other CNS neurodegenerative disorders. Patients with these neurological disorders have a host of symptoms beyond

¹ Cancer, 2007 (Datamonitor).

² Pipeline Insight: Cancer Overview Emerging Therapeutic and Market Opportunities, July 2006 (Datamonitor).

those directly related to their neurological condition. These “associated” symptoms include psychiatric disturbances such as depression, anxiety and cognitive impairment and significantly impact quality of life for millions of patients suffering from the neurological disorders. Antidepressant sales worldwide were \$19 billion in 2007.³ Current antidepressants focus on reuptake inhibitors and serotonin-based drugs as a first-line treatment. Many depression patients are refractory to the various classes of antidepressants and suffer from severe side effects. Unmet needs include faster time to onset of action (current antidepressants taking up to six weeks for effect); fewer side effects; greater medication compliance; and higher efficacy and lower relapse rates.⁴

Erectile dysfunction (ED) is defined as the consistent inability to attain and maintain an erection sufficient for satisfactory sexual intercourse.⁵ There are 150 million estimated men with ED worldwide. In the year 2025, it is estimated that 322 million men worldwide will suffer from some degree of sexual dysfunction.⁶ Worldwide sales for ED drugs were \$3 billion in 2007.⁷ ED is estimated to affect up to 30 million men in the United States⁸, with 52% of men between the ages of 40 and 70 reporting difficulty with erectile function.⁹ While the phosphodiesterase type-5 (PDE-5) inhibitors are the standard of care in ED drugs, several unmet needs remain. About 30% of patients are refractory to PDE-5 inhibitors. Further, PDE-5 inhibitors are limited to working peripherally only, and targeting end-organ effect with mechanical vasodilating action. PDE-5 inhibitors have significant drawbacks of cardiovascular risks, and potential severe side effects such as priapism, severe hypotension, myocardial infarction, and ventricular arrhythmias.

Current Cancer Treatments

The life-threatening nature of cancer, and the various ways of trying to cure cancer to save lives, has led to treatment(s) with surgery, radiation therapy, and chemotherapy. Surgery is widely used to treat, and in many cases cure 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.

Unmet Needs in Cancer

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

3 IMS Report 2007; CNS Drug Discoveries, 2008 by ESPICOM

4 Commercial Insight: Depression, June 2007; Stakeholder Insight: Major Depressive Disorder (MDD), March 2006 (Datamonitor). Delay in onset of relief is associated with SSRIs and SNRIs, MAOIs, and TCAs (selective serotonin or serotonin-norepinephrine reuptake inhibitors, monoamine oxidase inhibitors, tricyclic antidepressants). The SSRIs are linked to side effects insomnia, weight gain, and sexual dysfunction. Medication compliance rates range from 40% to 65%. The proportion of patients achieving remission after antidepressant treatment ranges from 35% to 55% depending on severity of depression.

5 NIH Consensus Development Panel and Conference: Impotence. JAMA 1993; 270:83-90.

6 Aytá et al. The likely worldwide increase in erectile dysfunction between 1995 and 2025. BJU Int. 1999; 84:50-56.

7 Pharmaventures, PharmaDeals May 2005: 16-17.

8 Benet and Melman. The epidemiology of erectile dysfunction. Urol Clin North Am 1995; 22:699-709.

9 Feldman, et al. Impotence and its medical and psychosocial correlates: Results of the Massachusetts Male Aging Study. J. Urol. 1994; 151:54-61.

- **Long-term management of cancers:** Surgery, chemotherapy or radiation therapy may not result in long-term remission, though surgery and radiation therapies are considered cure methods. 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 successful clinical outcomes.
- **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-1 protein kinase in cancer cells. Archexin™ has FDA orphan drug designations for five cancers (RCC, glioblastoma, and cancers of the ovary, stomach and pancreas). Multiple indications for other solid tumors can 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 (ASO) compound that is complementary to Akt mRNA, and highly selective for inhibiting mRNA expression and 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 (G3) 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 (MTD), dose limiting toxicity, and PK parameters for Archexin™ monotherapy. The Archexin™ Phase I study design was an open label, single arm ascending dose, safety and tolerability study.

Archexin™ Phase II trials for RCC have been extended. There are over 200,000 RCC cases worldwide and 40,000 U.S. cases annually. Expected peak sales of the RCC drugs Nexavar and Sutent are \$750 million and \$1.5 billion, respectively. Only 20% of metastatic RCC tumors respond to standard therapy, leaving 80% of advanced RCC patients with no effective treatment. Further, up to 30 to 50% of RCC stage I to stage III patients relapse following treatment. Once metastatic disease develops, five-year survival is low and ranges from 0% to 20%.¹⁰

Archexin™ has been issued a U.S. patent 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.

¹⁰ Mekhail et al, 2005.

Current CNS Treatments

The U.S. National Institute of Mental Health (NIMH) estimates that 26 percent of adults, or more than 55 million Americans, suffer from a diagnosable mental disorder in a given year. The depression market is one of the more mature and established markets in CNS therapeutics. Current treatments for depression focus on serotonin-based drugs (e.g., selective serotonin reuptake inhibitors, SSRIs) as a first-line treatment. Many depression patients are refractory to the various classes of antidepressants and suffer from severe side effects.

Unmet Needs in CNS Disorders: Major Depressive Disorder (MDD)

Unmet needs for treating Major Depressive Disorder (MDD) include¹¹ the following:

- **Faster onset of action.** Current antidepressants take four to six weeks to relieve depression symptoms. The delay in onset of antidepressant activity is associated with the most common antidepressant drug classes including: selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), monoamine oxidase inhibitors (MAOIs), and tricyclic antidepressants (TCAs).
- **Fewer side effects.** The most widely used antidepressants, SSRIs, are linked with side effects of insomnia, weight gain and sexual dysfunction. The safety of SSRIs has also been called into question over concerns about inducing suicidal ideations. Use of benzodiazepines is linked with side effects of cognitive deficit and motor impairment.
- **Improved compliance.** High rate of serious side effects among patients taking antidepressant drugs leads many to stop taking the prescribed medicines, resulting in high non-compliance rates of 40% to 65%.
- **Need for greater efficacy.** Remission is one key objective of depression treatment. The proportion of patients achieving remission after antidepressant treatment ranges from 35% to 55% depending on the severity of depression.¹² New drugs with much higher efficacy as well as wider coverage of the depression patients are needed.
- **Reduced MDD relapse.** High relapse rate of about 35% and lingering symptoms are serious problems in antidepressant treatment.

Serdaxin™: CNS Drug to Treat Neurodegenerative Disorders, Depression, and Mood Disorders

Serdaxin™ is a potential market leading CNS neuroprotective agent and antidepressant. Based on its novel actions as a dual serotonin and dopamine enhancer, it is a potential treatment for multiple CNS disorders where these neurotransmitters are depleted or implicated in CNS-based illnesses such as Parkinson's disease and depression. It has shown neuroprotective effects in the substantia nigra,

¹¹ Depression, June 2007; Stakeholder Insight: Major Depressive Disorder (MDD), March 2006 (Datamonitor).

¹² Remission rates tend to vary based on factors such as: treatment algorithm and drugs prescribed, patient geographic population or country, prescribing doctor (primary care, psychiatrist), and time at which remission rates are measured (3, 6, 8, or 10 weeks of treatment). Depression, June 2007; MDD, March 2006 (Datamonitor).

hippocampus, and nucleus accumbens- areas of the brain involved in neurodegenerative diseases. Among lead indications, Rexahn is conducting a Phase IIa clinical trial of Serdaxin™ to treat depression. The study goals include assessment of preliminary efficacy, and will recruit up to 100 patients with major depressive disorder (MDD) in a multi-center, randomized, double blind, dose ranging and placebo-controlled trial. Main endpoints include the HAM-D and MADRS depression rating scales. Serdaxin™ will be administered as an oral, extended release tablet. Clinical programs are also planned in Parkinson's and biodefense uses.

Serdaxin™ has well-established and extensive safety in humans, and appears to have excellent tolerability and few side effects. It may realize its greatest potential as a neuroprotective agent that further addresses the morbidity of depression and mood disorders that are linked to CNS illnesses of the neurodegenerative category, such as PD and Alzheimer's disease. In regards to PD, Serdaxin™ has shown in animal models that it has the potential to address both non-motor and motor events of PD in humans, by treating depleted dopamine levels that lead to loss of control of movements; and further, enhancing serotonin and dopamine levels that are involved in depression and mood disorders. Serdaxin™ may achieve greater and broader therapeutic coverage, and appears to have no cognition deficit and side effects such as nausea, vomiting, insomnia, weight gain, and sexual dysfunction that are linked to existing drugs.

Current Sexual Dysfunction Treatment

The launch of Viagra® in 1998 as the first orally available phosphodiesterase PDE-5 inhibitor established a new standard of care for ED. The majority of ED drugs in the R&D pipeline work by a 'me-too' PDE-5 inhibitor mechanism of action.¹³ Dopamine agonists are also in clinical trials for ED.¹⁴

Unmet Needs in Sexual Dysfunction

There are potential severe side effects associated with PDE-5 drugs, such as priapism, severe hypotension, myocardial infarction, sudden death, increased intraocular pressure and sudden hearing loss. PDE-5 inhibitors only target end organ erectile function, and work in peripheral blood vessels. Beyond the PDE-5 inhibitors, there is currently no single class of ED drugs to dominate the market.²²

- **Need for Greater Efficacy-** An estimated 30% of US men are refractory to the leading PDE-5 inhibitor drugs (Viagra®, Cialis®, and Levitra®), which work peripherally and mechanically.
- **Reduced Side Effects-** Certain segments of the ED patient population that respond less to PDE-5 inhibitors include diabetics, obese or post-surgical prostatectomy or coronary risk patients.¹ PDE-5 inhibitors have significant drawbacks of cardiovascular risks and other side effects (e.g., priapism, severe hypotension, myocardial infarction, ventricular arrhythmias, sudden death and increased intraocular pressure).

Zoraxel™: Drug Candidate to Treat Erectile Dysfunction (ED) Sexual Dysfunction

Zoraxel™ is centrally acting in the CNS and may be a more effective ED treatment for patients who are responsive or unresponsive to PDE-5 inhibitors. Zoraxel™ is being developed as an orally

¹³ Erectile Dysfunction, 2006 (Datamonitor).

¹⁴ Gresser U and Gleiter CH. Erectile Dysfunction: Comparison of efficacy and side effects of the PDE-5 inhibitors sildenafil, vardenafil and tadalafil (Review of Literature). Eur J Med Res (2002) 7:435-46.

administered, on-demand tablet to treat sexual dysfunction, and has extensive and well-established safety in humans. Zoraxel™ is a dual enhancer of neurotransmitters in the brain that play a key role in sexual activity phases of motivation and arousal, erection and release, and may be the first ED drug to affect all three of these phases of sexual activity. In preclinical animal studies, Zoraxel™ significantly improved sexual performance and suggested positive behavioral effects. Enrollment in the Zoraxel™ Phase IIa clinical trial for treatment of Erectile Dysfunction (ED) has been completed. The trial was a double blind, placebo-controlled, dose ranging study conducted at three U.S. study sites in up to 50 male subjects ages 18 to 65 with ED for six months. Main study endpoints for the 8-week treatment period were the Sexual Encounter Profile (SEP) and the International Index of Erectile Function (IIEF), both of which are validated surveys for assessing erectile function.

Market Opportunity

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

- *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. Because mental disorders affect more than 55 million estimated Americans, the burden of illness is significant for insurance companies as well as for employers. Given the significant cost of treating behavioral health problems, there is a favorable environment for formulary access and reimbursement for effective products that treat multiple disorders.
- *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.
- *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. Our lead products, Serdaxin™ and Zoraxel™, are also expected to have expedited or shortened clinical development timelines because their active pharmaceutical ingredient, or API, have extensive and well established safety in humans.

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 expand our R&D pipeline and introduce more new drugs into clinical trials over the next five years, and 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, and small molecule cytotoxics (microtubule inhibitors, quinazoline and nucleoside analogues). Differentiated target product profiles, and proprietary discovery and research technology platforms further support these strategic efforts. Further, we plan to commercialize neurology

and psychiatry drugs for growing CNS markets. Rexahn has exclusive patent and development rights to a portfolio of CNS compounds that are repurposed and adaptable for development in multiple indications, including Parkinson's disease, depression, and neurodegenerative disorders.

Target Signal Transduction Molecules with Multiple Drug Candidates

We plan to expand our oncology drug candidate pipeline and introduce several new signal inhibitor drugs into clinical trials over the next five 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

We seek to establish strategic alliances and partnerships with large pharmaceutical companies. To date, we have not entered into such agreements with any large pharmaceutical companies.

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 and other strategic therapeutic areas that have value creating potential and will strengthen our R&D pipeline. For example, in February 2005, we licensed the intellectual property of Revaax Pharmaceuticals LLC ("Revaax") to develop new drugs for treatment of CNS and mood disorders. As a result of this licensing agreement, we have now advanced Serdaxin™ and Zoraxel™ into Phase II clinical trials for depression and sexual dysfunction patients.

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 more pre-clinical drugs, including the following:

Clinical Stage Pipeline

- (1) Archexin™: First-in-class anticancer Akt inhibitor
- (2) Serdaxin™: Antidepressant and CNS Disorders drug
- (3) Zoraxel™: Erectile Dysfunction (ED) and sexual dysfunction drug

Pre-clinical Pipeline

- (1) RX-0201-Nano: Nanoliposomal anticancer Akt-1 inhibitor
- (2) RX-0047-Nano: Nanoliposomal anticancer HIF-1 alpha inhibitor
- (3) Nano-polymer Anticancer Drugs: HPMA-docetaxel and HPMA-gemcitabine
- (4) RX-0183: Small molecule targeted anticancer drug candidate
- (5) RX-5902: Small molecule microtubule inhibitor anticancer drug candidate
- (6) RX-3117: Small molecule anti-metabolite nucleoside anticancer drug candidate

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-1 inhibitor

RX-0201, the active ingredient of Archexin™, is a first-in-class, potent inhibitor of the Akt-1 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. IND-enabling studies are planned for 2009.

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

RX-0047-Nano is a nanoliposomal cancer drug candidate that selectively inhibits expression of the HIF-1 α transcription factor. HIF-1 α is a key signaling molecule in angiogenesis, cancer cell survival and invasion, and radiation resistance. RX-0047 is a first-in-class anticancer candidate that directly inhibits HIF-1 α , which is over-expressed in a broad range of human cancers, and associated with increased cancer mortality and resistance. In pre-clinical studies, RX-0047 significantly downregulated expression of HIF-1 α mRNA and protein. At nanomolar concentrations, RX-0047 inhibited proliferation of cancer cells from human solid tumors and growth of implanted tumors in lung and prostate cancer xenograft animal models, and reversed resistance in radiation-resistant cancer cells. RX-0047-Nano is expected to provide significant clinical benefits including targeted higher cellular uptake, extended circulation time, reduced drug-related toxicity, and improved efficacy.

(3) Nano-polymer Anticancer Drugs- HPMA-docetaxel and HPMA-gemcitabine

A major problem with many cancer drugs is their lack of tumor specificity and dose-limiting toxicity. Nano-polymer conjugated drugs may deliver drugs more precisely to tumor tissues with less

toxic effects. Rexahn's HPMa-docetaxel and HPMa-gemcitabine are expected to achieve the anticancer effects of docetaxel and gemcitabine, respectively, at much lower dose levels with significantly fewer side effects.

(4) RX-0183: Small molecule targeted anticancer drug candidate

RX-0183 possesses distinct molecular pharmacology properties and mechanisms to affect specific signaling proteins involved in cancer cell proliferation, survival, and angiogenesis, and radiation resistance as well. Study results of RX-0183 indicate its potential as a novel small molecule drug that downregulates Akt and c-Fos, and inhibits tumor growth in colon cancer xenograft animal models.

(5) RX-5902: Small molecule microtubule inhibitor anticancer drug candidate

RX-5902 is a novel small molecule anticancer compound that demonstrates significant anti-proliferative activity and belongs to the microtubule-cell cycle inhibitor class. RX-5902 has demonstrated *in vivo* the inhibition of tumor growth in animal xenograft models; potent anti-growth activity in *drug-resistant cancer* cells and animal studies; and delayed tumor growth in *paclitaxel-resistant colon cancer* cells. RX-5902 has potential use in combination therapy with known cancer drugs to improve efficacy and decrease toxicity to cancer patients, and good PK parameters and bioavailability when given by oral route of administration in animal model studies.

(6) RX-3117: Small molecule anti-metabolite nucleoside anticancer drug candidate

RX-3117 is an anti-metabolite nucleoside compound that has the potential to treat gemcitabine-resistant solid tumors of lung (NSCLC), stomach, and colon cancers. *In vitro* RX-3117 inhibited proliferation of human cancer cells derived from several different solid tumors. Further, RX-3117 treated mice xenografted with human colon cancer cells demonstrated significantly reduced tumor mass compared to control animals.

Competition

We are developing new drugs to address unmet medical needs in oncology, CNS disorders, and sexual dysfunction markets. 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 that are conducting research and development on technologies and products for treatment of cancers, CNS diseases and sexual dysfunction. 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.

Our competitors may include major pharmaceutical, specialized biotechnology firms, and academic and other research institutions. Many of our competitors have substantially greater financial, technical and human resources than we do. In addition, many of our competitors have significantly greater experience than we do in undertaking pre-clinical testing and human clinical trials of new pharmaceutical products and obtaining FDA and other regulatory approvals of products for use in health care.

As we expand our drug development programs to include diseases other than cancer, CNS and sexual dysfunction, we will also face competition from pharmaceutical and biotechnology companies conducting research and development on products for treatment of those other diseases, increasing our competition. For many of the same reasons described above, we cannot assure you 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 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. 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. While larger patient populations are evaluated in Phase III at multiple study sites, many clinical trial programs or registration studies could be conducted concurrently for the sake of time and efficiency.

After completing the IND 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 legal responsibility of the FDA to review the proposed product labeling, the pre-clinical (animal and laboratory) data, the clinical data, as well as the facilities utilized and the methodologies employed in the manufacture of the product which have been submitted to the agency 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 less 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 commercialize 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. We also seek acquisition or in-licensing candidates to strengthen our product pipeline.

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.

TIMES (The Inhibitors of Multi-Expression Signals)

Rexahn has developed a 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. The Rexahn 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 GOLD (3-D Gateway of Ligand Discovery)

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. Chemical database contains 3D structures of about 5 million compounds. Rexahn's proprietary QSID (Quantitative structure-activity relationship tool for Innovative Discovery) and docking tools are parts of the platform. 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. Rexahn was awarded grants from MIPS (Maryland Industrial Partnerships) and is collaborating with the Center for Nanomedicine of University of Maryland to accelerate the development of its proprietary nano technologies and nano products.

Manufacturing

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 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.

Intellectual Property (IP)

Proprietary patent and 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. Additional U.S., Europe, and 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.

In March 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.

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

UPM Pharmaceuticals, Inc. ("UPM"). On April 3, 2006, we entered into an agreement with UPM to develop product formulations for Serdaxin™ and Zoraxel™, respectively. In addition, we also entered into 10 additional attachments to the original agreement as of December 31, 2008.

Korean Research Institute of Bioscience and Biotechnology ("KRIBB"). On April 1, 2006, we entered into a research agreement with KRIBB to evaluate anti-tumor activity, toxicology, pharmacokinetics and mechanisms of action for RX-5902. This project was completed as of December 31, 2008.

Ewha Womans University ("Ewha"). On March 1, 2004, we entered into an agreement with Ewha to collaborate with and sponsor Ewha's research in the area of carbocyclic nucleoside, which relates to our anticancer drug discovery efforts. Intellectual property made or developed in the course of this agreement is or will be owned by us. In March 1, 2006, we entered into another research program with Ewha. This project was completed as of December 31, 2008.

Korea Research Institute of Chemical Technology ("KRICT"). On June 1, 2005, we entered into a joint research agreement with KRICT with respect to research regarding protein kinases in human cancer diseases. The research term expired in early 2006. Intellectual property made or developed under this agreement is jointly owned by us and KRICT. On March 1, 2007, we entered into a research agreement with KRICT with respect to research regarding evaluation of plasma pharmacokinetics of RX-10100 in male Beagle dogs. Inventions or discoveries made or developed under this agreement is solely owned by us. This project was completed as of December 31, 2008.

The University of Maryland ("UMD"). On March 15, 2005, we entered into a Maryland Industrial Partnership agreement with the Biotechnology Institute of UMD to collaborate with and sponsor UMD's research in the area of ligand screening for novel anticancer therapeutics. Intellectual property made or developed under this agreement is jointly owned by us and UMD. This project was completed as of December 31, 2008.

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. This project is currently on-going.

Revaax Pharmaceuticals LLC ("Revaax"). On February 10, 2005, we licensed on an exclusive basis, with the right to sublicense, all of the intellectual property 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. 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 marketing approval for the licensed product. 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.

Formatech, Inc. ("Formatech"). On August 17, 2004 we entered into an agreement with Formatech to monitor and perform stability studies on our drug candidate, Archexin™. On January 3, 2006 and March 29, 2006, we contracted with Formatech to perform experiments on Archexin™ dosage form and concentrations.

Employees

We currently have 14 full-time employees, all of whom are based at our Rockville, Maryland office. 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.

Item 1A. Risk Factors.

You should carefully consider the risks described below together with the other information included in this Annual Report on 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. Through the end of 2009, we expect to spend approximately \$1.2 million on clinical development for Phase II clinical trials of Archexin™, Serdaxin™ and Zoraxel™, and the development of preclinical compounds, \$2.4 million on general corporate expenses and approximately \$113,000 on facilities rent. We will need to raise additional money through debt and/or equity offerings in order to continue to develop our drug candidates. If we are not able to raise sufficient additional money, we will have to reduce our research and development activities. We will first reduce research and development activities associated with our preclinical compounds. To the extent necessary, we will then reduce our research and development activities related to some or all of our clinical drugs.

Additionally, changes may occur that would consume our existing capital at a faster rate than projected, including but not limited to, the progress of our research and development efforts, the cost and timing of regulatory approvals and the costs of protecting our intellectual property rights. We may seek additional financing to implement and fund other drug candidate development, clinical trial and research and development efforts, including Phase I clinical trials for other new drug candidates, as well as other research and development projects, which together with the current operating plan for the next year, could aggregate up to \$3.6 million through the end of 2009.

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, 2008 and 2007 was \$29,906,479 and \$24,994,331, respectively. For the years ended December 31, 2008 and 2007, we had net losses of \$4,912,148 and \$4,304,005 respectively, primarily 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 operating losses 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.

We will need FDA approval to commercialize our drug candidates in the U.S. and approvals from the FDA-equivalent regulatory authorities in foreign jurisdictions to commercialize our drug candidates in those jurisdictions. In order to obtain FDA approval of our drug candidates, we must submit to the FDA a New Drug Application ("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 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 ASO compounds. To date, the FDA has not approved any NDAs for any ASO compounds. 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.

Our drug candidates are in early stages of clinical trials.

Our drug candidates are in an early stage of development and require extensive clinical testing, which are very expensive, time-consuming and difficult to design. In 2007, Archexin™, an oncology drug candidate, entered Phase II clinical trials. In 2008, we initiated Phase II clinical trial of Zoraxel™, sexual dysfunction drug candidate, and received FDA approval to initiate Phase II clinical trial of Serdaxin™, drug candidate for depression and other CNS disorders.

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;
- 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.

In addition, 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.

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.

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 and clinical trials and toxicology studies. This business practice is typical for the pharmaceutical industry and companies like us. For example, the Phase I clinical trials of Archexin™ were conducted at the Lombardi Comprehensive Cancer Center of Georgetown Medical Center and the University of Alabama at Birmingham, with the assistance of Amarex, LLC, a pharmaceutical clinical research service provider who is responsible for creating the reports that will be submitted to the FDA. We also relied on TherImmune Research Corporation (now named Bridge Global Pharmaceutical Services, Inc.), a discovery and pre-clinical service provider, to summarize Archexin™'s pre-clinical data. While we make every effort internally to oversee their work, these collaborators are not our employees and we cannot control the amount or timing of resources that they devote to our programs. These investigators may not assign priority to our programs or pursue them as diligently as we would if we were undertaking such programs ourselves. For example, we have a billing dispute on the work performance and expenses with Amarex, LLC for clinical trials. The dispute might cause a delay of the program or increase our costs associated with the program. 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 Raylo Chemicals Inc., Formatech, Inc., Avecia Biotechnology Inc. and 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 to the innovation.

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 globally develop 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 its 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 and Glaxo-SmithKline currently sell both generic and proprietary compounds for the treatment of cancer. 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 filed U.S. and PCT patent applications for anti-Akt compounds, including Archexin™ and anti-HIF compounds, including RX-0047. In November 2006, we were granted a U.S. patent for our anti-Akt compounds, including Archexin™. The patent covers the nucleotide sequences of the antisense compounds that target and inhibit the expression of Akt in human tissues or cells. The patent also covers the method of using the compounds to induce cytotoxicity in cancer cells. We have also filed three U.S. provisional patent applications for new anticancer quinazoline compounds, new anticancer nucleoside products and a drug target, cenexin, a polo-box binding protein. In December 2004, we also filed two Korean patent applications for new anticancer piperazine compounds. Through our licensing agreement with Revaax, we hold exclusive rights to five patents and multiple patent applications, with respect to certain chemical structures related to antibiotics, but without antibiotic efficacy. However, we cannot predict:

- the degree and range of protection any patents will afford us against competitors, including whether third parties will find ways to invalidate or otherwise circumvent our licensed patents;
- if and when patents will issue;
- whether or not others will obtain patents claiming aspects similar to those covered by our licensed patents and patent applications; or
- whether we will need to initiate litigation or administrative proceedings which may be costly whether we win or lose.

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

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

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

- obtain licenses, which may not be available on commercially reasonable terms, if at all;
- redesign our products or processes to avoid infringement;
- stop using the subject matter claimed in the patents held by others, which could cause us to lose the use of one or more of our drug candidates;

- pay damages; or
- defend litigation or administrative proceedings which may be costly 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™, which would significantly harm our business and future prospects.

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

In addition to our own internally developed drug candidates, we proactively seek opportunities to license-in the compounds in oncology and other therapeutic areas that are strategic and have value creating potential to take advantage of our development know-how. We are actively pursuing additional drug candidates to acquire for development. Such additional drug candidates could significantly increase our capital requirements and place further strain on the time of our existing personnel, which may delay or otherwise adversely affect the development of our existing drug candidates. Alternatively, we may be 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 Executive Officer and regulatory expert, could result in delays in product development and diversion of management resources, which could adversely affect our operating results. 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 a research agreement with a minority shareholder, and interest on bank account balances and short-term investments. Our accumulated deficit as of December 31, 2008 and 2007 was \$29,906,479 and \$24,994,331, respectively. For the years ended December 31, 2008 and 2007, we had net losses of \$4,912,148 and \$4,304,005, respectively, primarily 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;
- 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 paid, and do not expect to pay, any cash dividends because we anticipate that any earnings generated from future operations will be used to finance our operations and as a result, you will not realize any income from an investment in our common stock until and unless you sell your shares at a profit.

Some or all of the "restricted" shares of our common stock issued in the merger of 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 600,000 shares) during a three-month period. Non-affiliates may sell restricted securities after six months without any limits on volume.

Our common stock may be delisted from NYSE Alternext.

On February 24, 2009, we received a notice from NYSE Alternext providing notification that we are not in compliance with Section 1003(a)(iii) of the NYSE Alternext US LLC Company Guide (the "Guide") because we have stockholders' equity of less than \$6,000,000 and losses from continuing operations and net losses in our five most recent fiscal years. We must submit a plan of compliance by March 24, 2009 addressing how we intend to regain compliance with Section 1003(a)(iii) of the Guide within a maximum of eighteen months (the "Plan Period"). The Corporate Compliance Department management of NYSE Alternext will evaluate our plan and determine whether we have reasonably demonstrated that we will be able to regain compliance with the continued listing standards. If the plan is accepted, we will be subject to review during the Plan Period. We intend to submit our plan by March 24, 2009. If we do not submit a plan or if our plan is not accepted, we will immediately become subject to delisting proceedings. Additionally, if the plan is accepted but we are not in compliance with the continued listing standards of the Guide within the appropriate time periods, or if we do not make progress consistent with the plan during the Plan Period, we will become subject to delisting proceedings.

We believe that the listing of our common stock on a recognized national trading market, such as NYSE Alternext, is an important part of our business and strategy. Such a listing helps our stockholders by providing a readily available trading market with current quotations. Without that, stockholders may have a difficult time getting a quote for the sale or purchase of our stock, the sale or purchase of our stock would likely be made more difficult and the trading volume and liquidity of our stock would likely decline. The absence of such a listing may adversely affect the acceptance of our common stock as currency or the value accorded it by other parties. The delisting from NYSE Alternext would result in negative publicity and would negatively impact our ability to raise capital in the future.

If NYSE Alternext delists our securities from trading on its exchange, we could face significant material adverse consequences including:

- a limited ability of market quotations for our securities;
- a determination that our common stock is a "penny stock" which will require brokers trading in our common stock to adhere to more stringent rules and possibly resulting in a reduced level of trading activity in the secondary trading market for our common stock;
- a limited amount of news and analyst coverage for our company; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

Our common stock is currently listed on the NYSE Alternext. 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 the penny stock is a suitable investment 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 monthly 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.

Our business could be adversely impacted if we have deficiencies in our disclosure controls and procedures or internal control over financial reporting.

Effective internal control over financial reporting and disclosure controls and procedures are necessary in order for us to provide reliable financial and other reports and effectively prevent fraud. These types of controls are designed to provide reasonable assurance regarding the reliability of financial reporting and the proper preparation of our financial statements, as well as regarding the timely reporting of material information. If we cannot maintain effective internal control or disclosure controls and procedures, or provide reliable financial or SEC reports or prevent fraud, investors may lose confidence in our reported financial information, our common stock could be subject to delisting on the stock exchange where it is traded, our operating results and the trading price of our common stock could suffer, and we might become subject to litigation.

While our management will continue to review the effectiveness of our internal control over financial reporting and disclosure controls and procedures, there is no assurance that our disclosure controls and procedures or our internal control over financial reporting will be effective in accomplishing all control objectives, including the prevention and detection of fraud, all of the time.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Description of Property.

We lease approximately 8,030 square feet of laboratory and office space at 9620 Medical Center Drive, Rockville, Maryland, 20850. 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. Our lease expires on June 30, 2009. We are in the process of negotiating a new lease at a different location. We do not own any real property.

Item 3. Legal Proceedings.

We are not subject to any material pending legal proceedings.

Item 4. Submission of Matters to a Vote of Security Holders.

None.

PART II

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

As of March 16, 2009, 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 16, 2009, we have 56,025,649 shares of common stock outstanding and approximately 800 stockholders of record of common stock. As of March 16, 2009, no shares of preferred stock are outstanding.

Our common stock is traded on the NYSE Alternext, 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." Prior to May 13, 2005, our common stock was traded on the OTC-BB under the ticker symbol "CPRD" since November 2004.

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

<u>Period</u>	<u>High</u>	<u>Low</u>
2007		
First Quarter	1.85	1.10
Second Quarter	2.52	1.25
Third Quarter	2.20	1.01
Fourth Quarter	2.45	1.05
2008		
First Quarter	2.50	1.35
Second Quarter	9.99	1.85
Third Quarter	3.50	0.51
Fourth Quarter	1.35	0.66

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 2008.

Equity Compensation Plan Information

The following table provides information, as of December 31, 2008, 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	7,760,795	\$1.01	8,912,500
Equity compensation plans not approved by stockholders	-	-	-
Total	<u>7,760,795</u>	<u>\$1.01</u>	<u>8,912,500</u>

Item 6. Selected Financial Data.

A smaller reporting company is not required to provide the 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, 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.

Use of Estimates

The preparation of financial statements in conformity with GAAP 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.

Stock-Based Compensation

Effective January 1, 2006, the Company's Plan is accounted for in accordance with the recognition and measurement provisions of Statement of Financial Accounting Standards ("FAS") No. 123 (revised 2004), Share-Based Payment ("FAS 123(R)"), which replaces FAS No. 123, Accounting for Stock-Based Compensation, and supersedes Accounting Principles Board Opinion ("APB") No. 25, Accounting for Stock Issued to Employees, and related interpretations. FAS 123(R) requires compensation costs related to share-based payment transactions, including employee stock options, 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 No. 107 ("SAB 107"), which provides the Staff's views regarding the interaction between FAS No. 123(R) and certain SEC rules and regulations and provides interpretations with respect to the valuation of share-based payments for public companies. See Note 7 to the Financial Statements in Item 7 of this Annual Report for further details.

Recently Issued Accounting Standards

In September 2006, the Financial Accounting Standards Board ("FASB") issued FASB Staff Position ("FSP") Statement of Financial Accounting Standards ("FAS") No. 157, "Fair Value Measurements" ("FAS No. 157"), which defines fair value, establishes a framework for measuring fair value and expands the related disclosure requirements. FAS No. 157 applies under other accounting

pronouncements that require or permit fair value measurements and does not require any new fair value measurements. FAS No. 157 indicates, among other things, that a fair value measurement assumes that the transaction to sell an asset or transfer a liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. FAS No. 157 defines fair value based upon an exit price model. In February 2008, the FASB issued FSP on FAS No. 157-1, "Application of FASB Statement No. 157 to FASB Statement No. 13 and Its Related Interpretive Accounting Pronouncements That Address Leasing Transactions," and FSP FAS No. 157-2, "Effective Date of FASB Statement No. 157." FSP FAS No. 157-1 removes leasing transactions from the scope of FAS No. 157, while FAS No. 157-2 defers the effective date of FAS No. 157 to the fiscal year beginning after November 15, 2008 for nonfinancial assets and nonfinancial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis. It does not defer recognition and disclosure requirements for financial assets and financial liabilities, or for nonfinancial assets and nonfinancial liabilities that are remeasured at least annually. Effective January 1, 2008, the Company adopted FAS No. 157, with the exception of the application of the statement to non-recurring nonfinancial assets and nonfinancial liabilities. The adoption of FAS No. 157 did not impact the Company's financial position or results of operations.

In December 2007, FASB issued FAS No. 141 (revised 2007), "Business Combinations" ("FAS No. 141(R)"). This statement replaces FAS No. 141, "Business Combinations" and requires an acquirer to recognize the assets acquired, the liabilities assumed, including those arising from contractual contingencies, any contingent consideration, and any noncontrolling interest in the acquiree at the acquisition date, measured at their fair values as of that date, with limited exceptions specified in the statement. FAS No. 141(R) also requires the acquirer in a business combination achieved in stages (sometimes referred to as a step acquisition) to recognize the identifiable assets and liabilities, as well as the noncontrolling interest in the acquiree, at the full amounts of their fair values (or other amounts determined in accordance with FAS No. 141(R)). In addition, FAS No. 141(R)'s requirement to measure the noncontrolling interest in the acquiree at fair value will result in recognizing the goodwill attributable to the noncontrolling interest in addition to that attributable to the acquirer. FAS No. 141(R) amends FAS No. 109, "Accounting for Income Taxes", to require the acquirer to recognize changes in the amount of its deferred tax benefits that are recognizable because of a business combination either in income from continuing operations in the period of the combination or directly in contributed capital, depending on the circumstances. It also amends FAS No. 142, "Goodwill and Other Intangible Assets", to, among other things, provide guidance on the impairment testing of acquired research and development intangible assets and assets that the acquirer intends not to use. FAS No. 141(R) applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. The adoption of FAS No. 141(R) will not have an impact on the Company's financial statements.

In December 2007, FASB issued FAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements—amendment of Accounting Research Bulletin No. 51" ("FAS No. 160"). FAS No. 160 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. It also clarifies that a noncontrolling interest in a subsidiary is an ownership interest in the consolidated entity that should be reported as equity in the consolidated financial statements. FAS No. 160 also changes the way the consolidated income statement is presented by requiring consolidated net income to be reported at amounts that include the amounts attributable to both the parent and the noncontrolling interest. It also requires disclosure, on the face of the consolidated statement of income, of the amounts of consolidated net income attributable to the parent and to the noncontrolling interest. FAS No. 160 requires that a parent recognize a gain or loss in net income when a subsidiary is deconsolidated and requires expanded disclosures in the consolidated financial statements that clearly identify and distinguish between the interests of the parent owners and the interests of the noncontrolling owners of a subsidiary. FAS No. 160 is effective for fiscal periods, and interim periods

within those fiscal years, beginning on or after December 15, 2008. The adoption of FAS No. 160 will not have an impact on the Company's financial statements.

In March 2008, FASB issued FAS No. 161, "Disclosures about Derivative Instruments and Hedging Activities - an amendment of FASB Statement No. 133" ("FAS 161"). FAS No. 161 changes the disclosure requirements for derivative instruments and hedging activities. Entities are required to provide enhanced disclosures about (a) how and why an entity uses derivative instruments, (b) how derivative instruments and related hedged items are accounted for under Statement 133 and its related interpretations, and (c) how derivative instruments and related hedged items affect an entity's financial position, financial performance, and cash flows. FAS No. 161 is effective for fiscal years and interim periods beginning after November 15, 2008. The Company is currently assessing the potential impact that the adoption of FAS 161 could have on its financial statements.

Results of Operations

Total Revenues

During 2003 we entered into a collaborative research agreement with Rexgene Biotech Co., Ltd. ("Rexgene"), a minority shareholder. Rexgene is engaged in the development of pharmaceutical products in Asia and has agreed to assist us with the research, development and clinical trials necessary for registration of our Archexin™ drug candidate in Asia. This agreement provides Rexgene with exclusive rights to license, sublicense, make, have made, use, sell and import Archexin™ in Asia. A one-time contribution to the joint development and research of Archexin™ of \$1,500,000 was paid to us in 2003 in accordance with the agreement. The amount of revenue from this contribution is being recognized as income over the term of this agreement which terminates at the later of 20 years or the term of the patent on the licensed product. We use 20 years as the basis for revenue recognition and accordingly \$75,000 was included in revenues in each fiscal year beginning with 2003 and the remaining \$1,050,000 is reflected as deferred revenue on the balance sheet as of December 31, 2008. We adopted SAB No. 104, "Revenue Recognition - Nonrefundable Upfront Fees" with respect to the accounting for this transaction. These fees are to be used in the cooperative funding of the costs of development of Archexin™.

Comparison of the Year Ended December 31, 2008 and the Year Ended December 31, 2007

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 and general legal activities.

General and administrative expenses decreased \$202,447, or 7.4%, from \$2,728,152 in fiscal 2007 to \$2,525,705 in fiscal 2008. The decrease was due primarily to a reduction of \$389,000 in stock compensation expense due to lower fair values calculated using option pricing model as a result of the decline in our share price for the current year as compared to 2007. In 2008, we issued 2,005,000 options compared to 525,000 in 2007. The decrease in our stock value more than offset the increase of 1,480,000 options issued in 2008. The decrease in general and administrative expenses is partly offset by increase in payroll expenses of \$105,000 as more employees were hired and payment of \$87,000 for the initial listing fee on the NYSE Alternext US LLC, formerly the American Stock Exchange.

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 increased \$902,213 or 59.1%, from \$1,527,294 in fiscal 2007 to \$2,429,507 in fiscal 2008. The increase was due primarily to expenses incurred in relation to Phase II clinical trials for Serdaxin and Zoraxel drug candidates. We expect that research and development expenses will increase as our other drug candidates move into the clinical trials phases of development.

Patent Fees

Our patent fees increased \$29,747, or 15.9%, from \$186,613 in fiscal 2007 to \$216,360 in fiscal 2008. This was primarily due to increased activity and legal costs incurred to respond to existing patent applications in 2008 as compared to 2007.

Depreciation and Amortization

Depreciation expense decreased \$9,327, or 14.3%, from \$65,070 in fiscal 2007 to \$55,743 in fiscal 2008. The decrease was due primarily to lab equipment being depreciated based on a declining balance.

Interest Expense

Our interest expense was \$0 for fiscal 2007 and 2008.

Interest Income

In fiscal 2008, we recorded \$260,533 of interest income from the investment of our cash and cash equivalents and other short-term investments, compared to \$128,124 recorded in fiscal 2007. The increase of \$132,409, or 103.3%, was primarily due to higher average cash and equivalents balance in 2008 as a result of private placements occurring in late 2007.

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 that have no alternative future uses are expensed as incurred. Our research and development programs are related to our three clinical stage lead drug candidates, Archexin™, Serdaxin™ and Zoraxel™ and pre-clinical stage nano drug candidates, RX-0201-Nano, RX-0047-Nano and Nano-polymer Anticancer Drugs. Each of our lead 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™, Serdaxin™ and Zoraxel™, is uncertain, and because RX-0201-Nano, RX-0047-Nano and Nano-polymer Anticancer Drugs 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 and if we are unable to obtain additional financing to fund these projects, we may not be able to continue as a going concern.

Archexin™

In October 2006, we announced the conclusion of the Phase I clinical trial of Archexin™, our leading drug candidate. The costs incurred for the clinical trial was approximately \$1,500,000.

The Phase I clinical trial of Archexin™, which took place at Georgetown University's Lombardi Cancer Center beginning in September 2004 and at the University of Alabama at Birmingham beginning in August 2005, was primarily to determine the safety and tolerability of the drug in patients with advanced cancer. As the main purpose of the clinical trial was to establish the safety of Archexin™, the parameters that determined the completion of this project were a direct function of the safety profile of this compound in humans. As this was the first time that Archexin™ had been administered to humans, the safety profile in humans was unknown and, therefore, the number of doses required to determine the dosage at which the FDA safety endpoints would be met was estimated.

The Phase II clinical trial of Archexin™ began in the third quarter of 2007 in patients with advanced renal cell carcinoma who have failed previous treatments. The trial is the first of multiple trials planned for Archexin™. We estimate that the Phase II trials will be completed in 2010 and will require approximately \$5,000,000. In January 2005, we received "orphan drug designation" from the FDA for Archexin™ for five cancer indications, including renal cell carcinoma, ovarian cancer, glioblastoma, stomach cancer, and pancreatic cancer. The orphan drug program is intended to provide patients with faster access to drug therapies for diseases and conditions that affect fewer than 200,000 people. Companies that receive orphan drug designation are provided an accelerated review process, tax advantages, and seven years of market exclusivity in the United States. In the future, we plan to apply Archexin™ to the treatment of other orphan indications and other cancers.

Serdaxin™

Serdaxin™ is being developed to treat depression and mood disorders, and has proven and well-established safety in humans. Through December 31, 2008, the costs incurred for development of these compounds to date have been approximately \$800,000. Serdaxin™ enters Phase II trials in the first half of 2009. We currently estimate that these studies will require \$1,750,000 through the end of 2011.

Zoraxel™

Zoraxel™ is a CNS-based sexual dysfunction drug that has extensive and excellent safety in humans. Through December 31, 2008, the costs incurred for development of these compounds to date have been approximately \$1,000,000. Zoraxel™ entered Phase II trials in the first half of 2008. We currently estimate that these studies will require approximately \$1,250,000 through the end of 2011.

Pre-clinical Pipeline

RX-0201-Nano, RX-0047-Nano and Nano-polymer Anticancer Drugs are in a pre-clinical stage of development and the next scheduled program for each compound is a pre-clinical toxicology study required prior to submission of an Investigational New Drug ("IND") application to the FDA. Through December 31, 2008, the costs incurred for development of these compounds to date have been approximately \$1,250,000. The estimated cost to complete pre-clinical toxicology and Phase I clinical trials is estimated to be approximately \$1,500,000 per each compound for a total of \$4,500,000. These compounds may be entered into these Phase I clinical trials in 2010.

The conduct of the clinical trial and toxicology studies described above are being accomplished in conjunction with third-party clinical research organizations, or CROs, 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, a higher than expected expense 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

Comparison of 2008 and 2007

Cash used in operating activities was \$4,323,853 in fiscal 2008 compared to \$3,394,839 in fiscal 2007. Fiscal 2008 operating cash flows reflect our loss from continuing operations of \$4,912,148, offset by net non-cash charges of \$485,793 and a net increase in cash components of working capital of \$102,502. Non-cash charges consist of depreciation and amortization of \$55,743, stock option compensation expense of \$484,684, amortization of deferred revenue of \$75,000 and realized losses on securities available for sale of \$20,366. The increase in working capital primarily consists of prepaid expenses and other of \$350,440 offset by reduction in accounts payable and accrued expenses of \$247,937. Fiscal 2007 operating cash flows reflect our loss from continuing operations of \$4,304,005, offset by net non-cash charges of \$1,111,716 and a net decrease in cash components of working capital of \$202,550. Non-cash charges consist of depreciation and amortization of \$65,070, stock option compensation expense of \$1,121,646 and amortization of deferred revenue of \$75,000. The decrease in working capital primarily consists of a \$31,469 increase in accounts payable and accrued expenses and an increase of \$234,019 to prepaid and other assets.

Cash of \$47,789 was used in investing activities in fiscal 2008, which consisted of \$27,193 for the purchase of equipment, \$5,848,176 for the purchase of available-for-sale securities and \$5,827,580 for proceeds from sales of available-for-sale securities. Cash used in investing activities of \$3,550,000 in fiscal 2007 consisted of the purchase of \$3,550,000 of available-for-sale securities.

Cash provided by financing activities of \$931,201 in fiscal 2008 consists of proceeds from the issuance of common stock for cash. Cash provided by financing activities of \$6,720,350 in fiscal 2007 consists of proceeds from the issuance of common stock for cash.

For the years ended December 31, 2008 and 2007, we experienced net losses of \$4,912,148 and \$4,304,005, respectively. Our accumulated deficit as of December 31, 2008 and 2007 was \$29,906,479 and \$24,994,331, respectively.

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 2008, we had a net decrease in cash and cash equivalents of \$3,440,441. This decrease resulted primarily from cash used in operating activities of \$4,323,853 offset by cash provided by financing activities of \$931,201. During fiscal 2007, we had a net decrease in cash and cash equivalents of \$224,489. This decrease primarily resulted from the cash provided by financing activities of \$6,720,350, offset by cash used in operating activities of \$3,394,839 and cash used in financing activities of \$3,550,000

On December, 24, 2007 we received approximately \$6,800,000 in net proceeds upon closing of the sales of our securities. Such sales consisted of the following: (1) sale to KT&G Corporation of 2,142,858 shares of our common stock and a warrant to purchase 428,572 shares of our common stock for total consideration of \$3,000,000; (2) sale to Rexgene Biotech Co., Ltd. of 714,286 shares of our common stock and a warrant to purchase 142,857 shares of our common stock for total consideration of \$1,000,000; (3) sale to Jungwoo Family Co., Ltd. of 142,857 shares of our common stock and a warrant to acquire up to 28,571 shares of our common stock for aggregate cash consideration of \$200,000; (4) sale to Kumho Investment Bank of 357,143 shares of our common stock and a warrant to acquire up to 71,429 shares of our common stock for aggregate cash consideration of \$500,000; and (5) sale to 26 individual Korean investors of a total of 1,500,015 shares of our common stock and a warrant to acquire up to 300,003 shares of our common stock for aggregate cash consideration of \$2,100,000.

On March 20, 2008, we received approximately \$900,000 in net proceeds upon closing of the sales of our securities. Such sales consisted of the following: (1) sale to Jungwoo Family Co., Ltd. of 285,715 shares of our common stock and a warrant to acquire up to 57,143 shares of our common stock for aggregate cash consideration of \$400,000; (2) sale to Super Bio Co. Ltd. of 357,143 shares of our common stock and a warrant to acquire up to 71,429 shares of our common stock for aggregate cash consideration of \$500,000.

For the foreseeable future, 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 have plans 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. 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.

Contractual Obligations

In April 2004, we entered into a clinical development agreement with Georgetown University with an effective period from April 5, 2004 through April 5, 2006. The total estimated cost of the program is \$223,126, based on the fees, enrollment and completion of 20 patients. The clinical trial has been completed and \$121,359 was paid in 2008.

In April 2004, we signed a 5-year lease for 8,030 square feet of office space in Rockville, Maryland from July 2004 to June 2009. The lease requires annual base rents of \$200,750 subject to annual increases of 3% of the preceding years adjusted base rent. Under the leasing agreement, we also pay our allocable portion of real estate taxes and common area operating charges. We are currently in negotiations with a new party to enter into a lease for new office space.

Minimum future rental payments under this lease are as follows:

<u>For the years ended December 31</u>	
2009	\$112,972

On January 6, 2006, we contracted with Amarex, LLC to conduct Phase II clinical studies for Archexin™. In accordance with the agreement, the estimated contract duration is 24 months for a total cost of \$596,244 plus pass through expenses. The service costs are payable in 24 monthly payments of \$18,633 plus an up front payment of \$149,061 due upon signing. We paid \$614,876 towards the cost of the study as of December 31, 2008. We are in the process of negotiating with Amarex, LLC to determine the actual cost of service. In 2007, we added additional services to the Phase II clinical studies. The cost of these services totals \$106,220, all of which was paid as of December 31, 2008.

On October 2, 2003, we contracted with Amarex to conduct Phase I clinical studies for Archexin™ (then RX-0201). Of the \$239,337 to be paid under this contract, \$194,461 was paid as of December 31, 2008. The balance will be paid when the final report is accepted, which is expected to be in 2009. Since 2003, additional services were added to the study. These services were contracted for \$200,043, all of which was paid as of December 31, 2008.

From April 3, 2006 through 2008, we have contracted with UPM Pharmaceuticals, Inc. to develop several release formulations for Serdaxin™ and Zoraxel™. In accordance with the agreements, the estimated total cost is \$945,080, of which \$785,315 was paid as of December 31, 2008. The service costs were payable based upon a payment schedule related to certain milestones.

On April 15, 2007 we entered into research agreement with University of Maryland Biotechnology Institute to identify new JNK inhibitors using their NMR technology. The total amount to be paid under this contract is \$17,000, of which \$10,000 was paid in 2007. The balance will be paid when the final report is submitted.

On May 18, 2007, we contracted with LabConnect to provide sample management and central laboratory services for Phase II clinical studies for Archexin™ clinical trials. The total contract amount is estimated to be \$197,220, of which \$54,444 was paid in 2007 and \$7,180 was paid in 2008. The balance will be paid as services are performed over the next 20 months.

On June 13, 2007, we contracted with Formatech to test the stability of the Archexin™ package. The total amount to be paid for this contract was \$17,000, of which \$10,000 was paid in 2007. The balance will be paid when the final report is submitted, which is expected to be in two years.

On May 6, 2008, we contracted with Delaware Valley Urology, LLC as a clinical site for our Phase IIa erectile dysfunction study for Zoraxel™. In accordance with the agreement, the estimated

contract duration is 17 months for an estimated cost of \$57,365, with lab costs included. \$43,147 was paid in 2008.

On April 14, 2008, we contracted with Myron I Murdock M.D. LLC as a clinical site for our Phase IIa erectile dysfunction study for a duration 12 months for Zoraxel™. The estimated amount of this contract, without lab costs, is \$104,559, of which \$37,750 was paid in 2008.

On April 15, 2008, we entered into a 24 month contract with Radiant Development CRO to manage clinical trials for our Phase IIa erectile dysfunction study for Zoraxel™. The total contract amount is estimated to be \$109,655, of which \$55,217 was paid in 2008.

On December 23, 2008, we entered into a 12 month contract with Radiant Development CRO to manage clinical trials for our Phase IIa major depressive disorder study for Serdaxin™. The total contract amount is estimated to be \$169,343, of which \$16,934 was paid in 2008.

On September 5, 2008, we contracted with Radiant Research - Greer as a clinical site for our Phase IIa clinical study for Zoraxel™ for erectile dysfunction. The estimated cost for the 12 month study is \$62,532, of which \$44,969 was paid in 2008.

On January 17, 2008, we entered into a Research Services Agreement with the University of Maryland, Baltimore to conduct *in vivo* studies of the PC-3 tumor model with Archexin™ and RX-0047. The total cost of the contract is \$27,288, of which \$20,466 was paid in 2008.

On December 1, 2008, we entered into Research Services Agreement with the University of Tromso, Norway to conduct statistical analysis regarding sexual incentive motivation for our erectile dysfunction study. The total cost for these services is \$19,000, of which \$9,500 was paid in 2008.

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. Based on our current plans and our capital resources, we believe that our cash and cash equivalents will be sufficient to enable us to meet our minimum planned operating needs through the end of 2009, which would entail focusing our resources on Phase II clinical trials of Archexin™, Serdaxin™ and Zoraxel™. Through the end of 2009, we expect to spend a minimum of approximately \$1.2 million on clinical development for Phase II clinical trials of Archexin™, Serdaxin™ and Zoraxel™ (including our commitments described under "Contractual Commitments" of this Item 6), \$2.3 million on general corporate expenses, and approximately \$113,000 on facilities rent. We will need to seek additional financing to implement and fund other 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, Phase II clinical trials for new product candidates, as well as other research and development projects, which together with the minimum operating plan through the end of 2009, could aggregate up to \$3.6 million. If we are not able to secure additional financing, we will 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.

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

Item 8. Financial Statements and Supplementary Data.

Our financial statements and financial statement schedule and the Report of Independent Registered Public Accounting Firm thereon are 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 Securities Exchange Act of 1934 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, 2008, 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, 2008. 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, 2008, our internal control over financial reporting was effective.

Our independent registered public accounting firm, Parente Randolph, LLC, has issued an audit report on the effectiveness of our internal control over financial reporting as of December 31, 2008 as stated in their report, which is included in this Annual Report on Form 10-K.

Chang H. Ahn
Chairman and Chief Executive Officer

Tae Heum Jeong
Chief Financial Officer, Secretary and
Director

March 16, 2009

Item 9B. Other Information.

None.

**Report of Independent Registered Public Accounting Firm
on Internal Control Over Financial Reporting**

Board of Directors and Stockholders
Rexahn Pharmaceuticals, Inc.
Rockville, Maryland:

We have audited Rexahn Pharmaceuticals, Inc. (the “Company”) internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Rexahn Pharmaceuticals, Inc.’s management is reasonable for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express and opinion on the Company’s internal control over financial reporting based on our audit.

We conducted our audit 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 effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company’s 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. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) proved 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 authorizations of management and directors of the company; and (3) 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.

**Report of Independent Registered Public Accounting Firm
on Internal Control Over Financial Reporting
(Continued)**

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

In our opinion, Rexahn Pharmaceuticals, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheet of Rexahn Pharmaceuticals, Inc. as of December 31, 2008, and the related statements of operations, shareholders' equity and comprehensive loss, and cash flows for the year then ended, and the cumulative from inception column in the statements of operations and cash flows for the year then ended, and our report dated March 10, 2009 expressed an unqualified opinion.

/s/ Parente Randolph, LLC

Morristown, New Jersey
March 10, 2009

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 9.

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 12, is hereby incorporated by reference in this Item 13.

Item 14. Principal Accounting Fees and Services.

The following table presents fees for professional audit services rendered by our independent registered public accounting firm for the audits of the Company's annual financial statements for the years ended December 31, 2008 and 2007, respectively.¹

	<u>2008</u>	<u>2007</u>
Audit Fees	\$125,500 ²	\$83,000
Audit-Related Fees	-	-
Tax Fees	-	-
All Other Fees	-	-

1. For the year ended December 31, 2007, the fees were paid to Lazar Levine & Felix LLP. For the year ended December 31, 2008, the fees for the quarterly reviews were paid to Lazar Levine & Felix LLP and the remaining fees will be paid to Parente Randolph, LLC which acquired the assets of Lazar Levine & Felix LLP in 2009.

2. Audit Fees relate to the audit of the Company's financial statements, reviews of certain financial statements included in the Company's quarterly reports on Form 10-Q and the audit of internal controls over financial reporting. The amount shown represents the maximum fees for such services.

Our Audit Committee reviews all audit fees at least annually and approves in advance the fee arrangements.

Item 15. Exhibits, Financial Statement Schedules.

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

(b)

(1) Financial Statements:	Page
Report of Parente Randolph, LLC	F-1
Report of Lazar Levine & Felix LLP	F-2
Balance Sheets at December 31, 2008 and December 31, 2007	F-3
Statement of Operations for the years ended December 31, 2008 and December 31, 2007 and cumulative from March 19, 2001 (Inception) to December 31, 2008	F-4
Statement of Stockholders' Equity and Comprehensive Loss from March 19, 2001 (Inception) to December 31, 2008	F-5
Statement of Cash Flows for the years ended December 31, 2008 and December 31, 2007 and cumulative from March 19, 2001 (Inception) to December 31, 2008	F-7
Notes to Financial Statements	F-8

(2)

All schedules for which provision is made in the applicable accounting regulations of the SEC are omitted because the required information is either presented in the financial statements or notes thereto, or is not applicable, required or material.

(3) 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:

<u>Exhibit Number</u>	<u>Exhibit Description</u>
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 Appendix H to the Company's Definitive Proxy Statement on Schedule 14A (File No. 000-50590) dated April 29, 2005, 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.
*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 September 12, 2005, 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 12, 2005, is incorporated herein by reference.
 - *10.3. Employment Agreement, effective September 12, 2007, by and between Rexahn Pharmaceuticals, Inc. and T. H. Jeong, filed as Exhibit 10 to the Company's Current Report on Form 8-K filed on October 9, 2007 is incorporated herein by reference.
 - 10.4. Research Collaboration Agreement dated February 6, 2003 by and between Rexahn Pharmaceuticals, Inc. and Rexgene Biotech Co., Ltd., filed as Exhibit 10.5 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, is incorporated herein by reference.
 - 10.5. Revaax License Agreement, dated February 8, 2005, by and between Rexahn Pharmaceuticals, Inc. and Revaax Pharmaceuticals LLC, filed as Exhibit 10.6 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, is incorporated herein by reference.
 - 10.6 Lease Agreement, dated April 26, 2004, by and between Red Gate III LLC and Rexahn Corporation, filed as Exhibit 10.6 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2007, is incorporated herein by reference.
 - 10.7 Securities Purchase Agreement, dated as of November 19, 2007, by and between Rexahn Pharmaceuticals, Inc. and KT&G Corporation, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 21, 2007, is incorporated herein by reference.
 - 10.8 Securities Purchase Agreement, dated as of November 20, 2007, by and between Rexahn Pharmaceuticals, Inc. and Rexgene Biotech Co., Ltd, filed as Exhibit 10.4 to the Company's Current Report on Form 8-K filed on November 21, 2007, is incorporated herein by reference.
 - 10.9 Securities Purchase Agreement, dated as of December 17, 2007, by and between Rexahn Pharmaceuticals, Inc. and Jungwoo Family Co., Ltd, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 18, 2007, is incorporated herein by reference.
 - 10.10 Securities Purchase Agreement, dated as of December 17, 2007, by and between Rexahn Pharmaceuticals, Inc. and Kumho Investment Bank, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 18, 2007, is incorporated herein by reference.
 - 10.11 Securities Purchase Agreement, dated as of December 17, 2007, by and between Rexahn Pharmaceuticals, Inc. and the several parties thereto, filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on December 18, 2007, is incorporated herein by reference.
 - 10.12 Warrant, dated December 24, 2007, issued to KT&G Corporation, filed as Exhibit 10.6 to the Company's Current Report on Form 8-K filed on December 26, 2007, is incorporated herein by reference.
 - 10.13 Warrant, dated December 24, 2007, issued to Rexgene Biotech Co., Ltd., filed as Exhibit 10.7 to the Company's Current Report on Form 8-K filed on December 26, 2007, is incorporated herein by reference.
 - 10.14 Form of Warrant, dated December 24, 2007, issued to the purchasers pursuant to the Jungwoo Securities Purchase Agreement, the Kumho Securities Purchase Agreement, the Individual Investor Securities Purchase Agreement and to a consultant, filed as Exhibit 10.4 to the Company's Current Report on Form 8-K filed on December 18, 2007, is incorporated herein by reference.

- 10.15 Registration Rights Agreement, dated as of December 24, 2007, by and among Rexahn Pharmaceuticals, Inc. and the purchasers pursuant to the KT&G Securities Purchase Agreement, the Rexgene Securities Purchase Agreement, the Jungwoo Securities Purchase Agreement, the Kumho Securities Purchase Agreement, the Individual Investor Securities Purchase Agreement and a consulting Services Agreement, filed as Exhibit 10.9 to the Company Current Report on Form 8-K filed on December 26, 2007, is incorporated herein by reference.
- 10.16 Securities Purchase Agreement, dated as of March 20, 2008, by and between Rexahn Pharmaceuticals, Inc. and Jungwoo Family Co., Ltd. (the "Jungwoo Securities Purchase Agreement"), filed as Exhibit 10.1 to the Company's current report on Form 8-K filed on March 26, 2008, is incorporated herein by reference.
- 10.17 Securities Purchase Agreement, dated as of March 20, 2008, by and between Rexahn Pharmaceuticals, Inc. and Super Bio Co. Ltd., (the "Super Bio Securities Purchase Agreement"), filed as Exhibit 10.2 to the Company's current report on Form 8-K filed on March 26, 2008, is incorporated herein by reference.
- 10.18 Form of Warrant for issuance pursuant to the Jungwoo Securities Purchase Agreement and the Super Bio Securities Purchase Agreement, filed as Exhibit 10.3 to the Company's current report on Form 8-K filed on March 26, 2008, is incorporated herein by reference.
- *10.19 Employment Agreement, dated July 14, 2008, by and between Rexahn Pharmaceuticals, Inc. and Rakesh Soni, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on July 16, 2008, is incorporated herein by reference.
- *10.20 Consulting Agreement, dated August 12, 2008, by and between Rexahn Pharmaceuticals, Inc. and Y. Michelle Kang, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 27, 2008, is incorporated herein by reference.
14. Code of Ethics and Business Conduct.
- 23.1 Consent of Parente Randolph, LLC, independent registered public accounting firm.
- 23.2 Consent of Lazar Levine & Felix LLP, independent registered public accounting firm.
24. Power of Attorney.
- 31.1. Certification of Chief Executive Officer of Periodic Report Pursuant to Pursuant to Rule 13a-15(e) or Rule 15d-15(e).
- 31.2. Certification of Chief Financial Officer of Periodic Report Pursuant to Pursuant to Rule 13a-15(e) or Rule 15d-15(e).
- 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.

* Management contract or compensation plan or arrangement.

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 16th day of March, 2009.

REXAHN PHARMACEUTICALS, INC.

By: /s/ Chang H. Ahn
Chang H. Ahn
Chairman and Chief Executive Officer

In accordance with the requirement of the Securities Exchange Act of 1934, this report has been signed on the 16th day of March, 2009 by the following persons on behalf of the issuer and in the capacities indicated:

<u>Name</u>	<u>Title</u>
<u>/s/ Chang H. Ahn*</u> Chang H. Ahn	Chairman and Chief Executive Officer
<u>/s/ Tae Heum Jeong*</u> Tae Heum Jeong	Chief Financial Officer, Secretary and Director
<u>/s/ Freddie Ann Hoffman*</u> Freddie Ann Hoffman	Director
<u>/s/ David McIntosh*</u> David McIntosh	Director
<u>/s/ Charles Beever*</u> Charles Beever	Director
<u>/s/ Kwang Soo Cheong*</u> Kwang Soo Cheong	Director
<u>/s/ Y. Michele Kang*</u> Y. Michele Kang	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 and Stockholders
Rexahn Pharmaceuticals, Inc.
Rockville, Maryland:

We have audited the balance sheet of Rexahn Pharmaceuticals, Inc. (the “Company”) (a development stage company) as of December 31, 2008, and the related statements of operations, stockholders’ equity and comprehensive loss, and cash flows for the year then ended and the amounts in the cumulative from inception column in the statements of operations and cash flows for the year then ended. 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 audit.

We conducted our audit 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 audit provides 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, 2008, and the results of its operations and its cash flows for the year then ended and the amounts included in the from inception columns in the consolidated statements of operations and cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Rexahn Pharmaceuticals, Inc. internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 10, 2009 expressed an unqualified opinion.

/s/ Parente Randolph, LLC

Morristown, New Jersey
March 10, 2009

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders of
Rexahn Pharmaceutical, Inc.
Rockville, Maryland:

We have audited the accompanying balance sheet of Rexahn Pharmaceuticals, Inc. (a development stage company) as of December 31, 2007 and the related statements of operations, stockholders' equity and comprehensive loss and cash flows for the year ended December 31, 2007 and the cumulative period from inception (March 19, 2001) to December 31, 2007. 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 audit 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on the test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides 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. at December 31, 2007 and the results of its operations and its cash flows for the year then ended and the cumulative period from inception (March 19, 2001) to December 31, 2007, in conformity with accounting principles generally accepted in the United States of America.

/s/ LAZAR LEVINE & FELIX LLP

New York, New York
March 24, 2008

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Balance Sheets

	December 31, 2008	December 31, 2007
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 369,130	\$ 3,809,571
Marketable securities (note 3)	2,999,750	3,550,000
Prepaid expenses and other (note 4)	366,765	717,205
Total Current Assets	3,735,645	8,076,776
Equipment, Net (note 5)	92,212	102,951
Intangible Assets, Net (note 6)	286,132	303,943
Total Assets	\$ 4,113,989	\$ 8,483,670
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable and accrued expenses (note 7)	\$ 358,894	\$ 606,832
Total Current Liabilities	358,894	606,832
Deferred Revenue (note 8)	1,050,000	1,125,000
Total Liabilities	1,408,894	1,731,832
Commitment and Contingencies (note 12)		
Stockholders' Equity (note 9):		
Preferred stock, par value \$0.0001, 100,000 authorized shares, none issued and outstanding	-	-
Common stock, par value \$0.0001, 500,000,000 authorized shares, 56,039,854 (2007 – 55,306,996) issued and 56,025,649 (2007 – 55,292,791) outstanding	5,604	5,530
Additional paid-in capital	33,184,860	31,769,049
Accumulated deficit during the development stage	(29,906,479)	(24,994,331)
Treasury stock, 14,205 (2007 – 14,205) shares, at cost	(28,410)	(28,410)
Accumulated other comprehensive (loss)	(550,480)	-
Total Stockholders' Equity	2,705,095	6,751,838
Total Liabilities and Stockholders' Equity	\$ 4,113,989	\$ 8,483,670

(See the notes accompanying the financial statements.)

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Statements of Operations

	Years Ended December 31,		Cumulative from March 19,
	2008	2007	2001 (Inception) to December 31, 2008
Revenue:			
Research	\$ 75,000	\$ 75,000	\$ 450,000
Expenses:			
General and administrative	2,525,705	2,728,152	14,864,439
Research and development	2,429,507	1,527,294	13,231,844
Patent fees	216,360	186,613	921,833
Depreciation and amortization	55,743	65,070	503,204
Total Expenses	5,227,315	4,507,129	29,521,320
Loss from Operations	(5,152,315)	(4,432,129)	(29,071,320)
Other (Income) Expense			
Realized loss on marketable securities	20,366	-	20,366
Interest income	(260,533)	(128,124)	(1,111,354)
Interest expense	-	-	301,147
Beneficial conversion feature	-	-	1,625,000
	(240,167)	(128,124)	835,159
Loss Before Provision for Income Taxes	(4,912,148)	(4,304,005)	(29,906,479)
Provision for Income Taxes	-	-	-
Net Loss	\$ (4,912,148)	\$ (4,304,005)	\$ (29,906,479)
Net Loss per share outstanding, basic and diluted	\$ (0.09)	\$ (0.09)	
Weighted average number of shares outstanding, basic and diluted	55,856,991	50,332,642	

(See the notes accompanying the financial statements.)

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Statements of Stockholders' Equity and Comprehensive Loss

Period from March 19, 2001 (Inception) to December 31, 2008

	<u>Common Stock</u>		<u>Treasury Stock</u>		<u>Additional Paid - Capital</u>	<u>Accumulated Other Comprehensive Loss</u>	<u>Accumulated Deficit During the Development Stage</u>	<u>Total Stockholders' Equity (Deficit)</u>
	<u>Number of shares</u>	<u>Amount</u>	<u>Number of shares</u>	<u>Amount</u>				
Opening balance, March 19, 2001	-	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -
Common shares 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 shares issued	500,000	5,000	-	-	1,995,000	-	-	2,000,000
Stock option 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 shares issued	1,500	15	-	-	1,785	-	-	1,800
Stock option 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 shares issued in connection with merger	3,397,802	340	-	-	(340)	-	-	-
Common shares issued for cash	4,175,000	17	-	-	8,349,565	-	-	8,349,982
Common shares issued on conversion of convertible debt	650,000	65	-	-	1,299,935	-	-	1,300,000
Exercise of stock options	40,000	4	-	-	9,596	-	-	9,600
Common shares issued in exchange for services	7,000	1	-	-	21,876	-	-	21,877
Beneficial conversion feature	-	-	-	-	1,625,000	-	-	1,625,000
Stock option 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
Exercise of stock options	61,705	6	-	-	14,802	-	-	14,808
Common shares 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 option 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	14,205	\$ (28,410)	\$ 23,927,551	\$ -	\$ (20,690,326)	\$ 3,213,847

(See the notes accompanying the financial statements.)

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Statements of Stockholders' Equity and Comprehensive Loss
Period from March 19, 2001 (Inception) to December 31, 2008

	<u>Common Stock</u>		<u>Treasury Stock</u>		<u>Additional Paid - Capital</u>	<u>Accumulated Other Comprehensive Loss</u>	<u>Accumulated Deficit During the Development Stage</u>	<u>Total Stockholders' Equity (Deficit)</u>
	<u>Number of shares</u>	<u>Amount</u>	<u>Number of shares</u>	<u>Amount</u>				
Balances at, December 31, 2006	50,322,337	\$ 5,032	14,205	\$ (28,410)	\$ 23,927,551	\$ -	\$ (20,690,326)	\$ 3,213,847
Common shares issued for cash	4,857,159	486	-	-	6,799,538	-	-	6,800,024
Exercise of stock options	127,500	12	-	-	59,988	-	-	60,000
Stock option compensation	-	-	-	-	1,121,646	-	-	1,121,646
Share issuance costs	-	-	-	-	(139,674)	-	-	(139,674)
Net loss	-	-	-	-	-	-	(4,304,005)	(4,304,005)
Balances at, December 31, 2007	55,306,996	5,530	14,205	(28,410)	31,769,049	-	(24,994,331)	6,751,838
Common shares issued	628,858	65	-	-	899,936	-	-	900,001
Exercise of stock options	90,000	9	-	-	31,191	-	-	31,200
Stock option compensation expense	-	-	-	-	484,684	-	-	484,684
Net (loss)	-	-	-	-	-	-	(4,912,148)	(4,912,148)
Unrealized loss on securities available for sale	-	-	-	-	-	(550,480)	-	(550,480)
Balances at, December 31, 2008	56,039,854	\$ 5,604	14,205	\$ (28,410)	\$ 33,184,860	\$ (550,480)	\$ (29,906,479)	\$ 2,705,095

(See the notes accompanying the financial statements.)

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Statement of Cash Flows

	Years Ended December 31,		Cumulative From March 19, 2001 (Inception) to December 31,
	2008	2007	2008
Cash Flows from Operating Activities:			
Net loss	\$ (4,912,148)	\$ (4,304,005)	\$(29,906,479)
Adjustments to reconcile net loss to net cash used in operating activities:			
Beneficial conversion feature	-	-	1,625,000
Compensatory stock	-	-	21,877
Depreciation and amortization	55,743	65,070	503,585
Stock option compensation expense	484,684	1,121,646	3,856,834
Amortization of deferred revenue	(75,000)	(75,000)	(450,000)
Realized losses on marketable securities available-for-sale	20,366	-	20,366
Changes in assets and liabilities:			
Prepaid expenses and other	350,440	(234,019)	(366,765)
Accounts payable and accrued expenses	(247,938)	31,469	358,894
Net Cash Used in Operating Activities	(4,323,853)	(3,394,839)	(24,336,688)
Cash Flows from Investing Activities:			
Purchase of equipment	(27,193)	-	(525,713)
Purchase of marketable securities	(5,848,176)	(3,550,000)	(9,398,176)
Proceeds from sales of marketable securities	5,827,580	-	5,827,580
Net Cash Used in Investing Activities	(47,789)	(3,550,000)	(4,096,309)
Cash Flows from Financing Activities:			
Issuance of common stock	931,201	6,720,350	22,536,753
Proceeds from long-term debt	-	-	5,150,000
Proceeds from research contribution	-	-	1,500,000
Payment of licensing fees	-	-	(356,216)
Principal payments on long-term debt	-	-	(28,410)
Net Cash Provided by Financing Activities	931,201	6,720,350	28,802,127
Net (Decrease) Increase in Cash and Cash Equivalents	(3,440,441)	(224,489)	369,130
Cash and Cash Equivalents - beginning of period	3,809,571	4,034,060	-
Cash and Cash Equivalents - end of period	\$ 369,130	\$ 3,809,571	\$ 369,130
Supplemental Cash Flow Information:			
Interest paid	\$ -	\$ 8,235	\$ 301,147
Non-cash financing and investing activities:			
Warrants	\$ 220,004	\$ 1,194,283	\$ 1,414,287

(See the notes accompanying the financial statements.)

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Notes to the Financial Statements

December 31, 2008 and 2007

1. Operations and Organization

Operations, Organization and Management Plans

Rexahn Pharmaceuticals, Inc. (the "Company" or "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 approximately \$29,900,000 at December 31, 2008 and anticipates incurring losses through the year 2009 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, issuance of long-term debt, and proceeds from reimbursed research and development costs. The Company believes that its existing cash and cash equivalents and short-term investments will be sufficient to cover its cash flow requirements for 2009. Management has the capability of managing the Company's operations within existing cash and marketable securities available by reducing its research and development activities. This may result in slowing down clinical studies, but will conserve the Company's cash to allow it to operate for the next twelve months.

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 ("CRS Delaware"), 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.

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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” securities in accordance with FAS No. 115, “Accounting for Certain Investments in Debt and Equity Securities”, and thus are reported at fair value in our accompanying balance sheets, with unrealized gains and losses excluded from earnings and reported as a separate component of stockholders’ equity. Realized gains and losses are accounted on the basis of specific identification and are included in other income (expense) in our income statements. If a decline in the fair value of a marketable security below the Company’s cost basis is determined to be other than temporary, such marketable security is written down to its estimated fair value as a new cost basis and the amount of the write-down is included in earnings as an impairment charge. To date, only temporarily impairment charges have been recorded in any of the years presented herein. We classify marketable securities as current assets on our balance sheets 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 estimated useful lives of the assets, is provided as follows:

	<u>Life</u>	<u>Depreciation Method</u>
Furniture and fixtures	7 years	double declining balance
Office equipment	5 years	double declining balance
Lab and computer equipment	5-7 years	double declining balance

d) Research and Development

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

Costs incurred in obtaining the license rights to technology in the research and development stage and that have no alternative future uses 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

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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, 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.

g) Income Taxes

The Company accounts for income taxes pursuant to Statement of Financial Accounting Standards ("FAS") No. 109, "Accounting for 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. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. 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. The Company has adopted FASB Interpretation No. 48, or FIN 48, *Accounting for Uncertainty in Income Taxes*, issued July 2006. FIN 48 applies to all tax positions related to income taxes subject to FAS No. 109. Under FIN 48, we recognize the benefit from a tax position only if it is more-likely-than-not that the position would be sustained upon an audit based solely on the technical merits of the tax position. Our policy to include interest and penalties related to unrecognized tax benefits as a component of income tax expense did not change as a result of implementing FIN 48.

h) Earnings or Loss Per Share:

The Company accounts for earnings per share pursuant to FAS No. 128, "Earnings per Share", which requires disclosure on the financial statements of "basic" and "diluted" earnings (loss) per share. Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares outstanding for the year. Diluted earnings (loss) per share is computed by dividing net income (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 and shares of common stock issuable upon conversion of the Company's convertible notes.

Diluted loss per share for the years ended December 31, 2008 and 2007 is the same as basic loss per share, since the effects of the calculation were anti-dilutive due to the fact that the Company incurred losses for all periods presented. The following securities, presented on a common share equivalent basis, have been excluded from the per share computations:

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	For the years ended	
	December 31, 2008	December 31, 2007
Stock Options	7,760,795	6,045,795
Warrants	1,207,148	1,078,576
	8,967,943	7,124,371

i) Stock-Based Compensation

Effective January 1, 2006, the Company's Stock-based Employee Compensation Plan is accounted for in accordance with the recognition and measurement provisions of Statement of Financial Accounting Standards ("FAS") No. 123 (revised 2004), Share-Based Payment ("FAS 123(R)", which replaces FAS No. 123, Accounting for Stock-Based Compensation, and supersedes Accounting Principles Board Opinion ("APB") No. 25, Accounting for Stock Issued to Employees, and related interpretations. FAS 123(R) requires compensation costs related to share-based payment transactions, including employee stock options, 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 No. 107 ("SAB 107"), which provides the Staff's views regarding the interaction between FAS No. 123(R) and certain SEC rules and regulations and provides interpretations with respect to the valuation of share-based payments for public companies. See footnote 9 for further details.

j) Impairment of Long-Lived Assets and Intangible Assets

In accordance with FAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets", 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.

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k) Concentration of Credit Risk

The Company does not have significant off-balance sheet risk or credit concentration. The Company maintains cash and marketable securities with major financial institutions. From time to time the Company has funds on deposit with commercial banks that exceed federally insured limits. As of December 31, 2008, the Company had cash of \$119,130 in excess of insured limits. The marketable securities are not covered by any federal insurance programs.

l) Comprehensive Loss

Comprehensive loss for 2008 was \$5,462,628 which is comprised of \$550,480 of other comprehensive loss and net loss for the year ended December 31, 2008 of \$4,912,148

m) Recent Accounting Standards Affecting the Company

Effective January 1, 2008, the Company adopted Statement of Financial Accounting Standards No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* ("FAS 159"). FAS 159 provides companies an option to report certain financial assets and liabilities at fair value and established presentation and disclosure requirements. The intent of FAS 159 is to reduce the complexity in accounting for financial instruments and the volatility of earnings caused by measuring related assets and liabilities differently. The Company chose not to elect the fair value option for its financial assets and liabilities exiting at January 1, 2008, and did not elect the fair value option on financial assets and liabilities transacted during the year ended December 31, 2008. Therefore, the adoption of SFAS 159 had no impact on the Company's financial statements. Effective January 1, 2008, the Company adopted FAS No. 157, with the exception of the application of the statement to non-recurring nonfinancial assets and nonfinancial liabilities. The adoption of FAS No. 157 did not impact the Company's financial position or results of operations.

In December 2007, FASB issued FAS No. 141 (revised 2007), "Business Combinations" ("FAS No. 141(R)"). This statement replaces FAS No. 141, "Business Combinations" and requires an acquirer to recognize the assets acquired, the liabilities assumed, including those arising from contractual contingencies, any contingent consideration, and any noncontrolling interest in the acquiree at the acquisition date, measured at their fair values as of that date, with limited exceptions specified in the statement. FAS No. 141(R) also requires the acquirer in a business combination achieved in stages (sometimes referred to as a step acquisition) to recognize the identifiable assets and liabilities, as well as the noncontrolling interest in the acquiree, at the full amounts of their fair values (or other amounts determined in accordance with FAS No. 141(R)). In addition, FAS No. 141(R)'s requirement to measure the noncontrolling interest in the acquiree at fair value will result in recognizing the goodwill attributable to the noncontrolling interest in addition to that attributable to the acquirer. FAS No. 141(R) amends FAS No. 109, "Accounting for Income Taxes", to require the acquirer to recognize changes in the amount of its deferred tax benefits that are recognizable because of a business combination either in income from continuing operations in the period of the combination or directly in contributed capital, depending on the circumstances. It also amends FAS No. 142, "Goodwill and Other Intangible Assets", to, among other things, provide

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guidance on the impairment testing of acquired research and development intangible assets and assets that the acquirer intends not to use. FAS No. 141(R) applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. The adoption of FAS No. 141(R) will not have an impact on the Company's financial statements.

In December 2007, FASB issued FAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements—amendment of Accounting Research Bulletin No. 51" ("FAS No. 160"). FAS No. 160 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. It also clarifies that a noncontrolling interest in a subsidiary is an ownership interest in the consolidated entity that should be reported as equity in the consolidated financial statements. FAS No. 160 also changes the way the consolidated income statement is presented by requiring consolidated net income to be reported at amounts that include the amounts attributable to both the parent and the noncontrolling interest. It also requires disclosure, on the face of the consolidated statement of income, of the amounts of consolidated net income attributable to the parent and to the noncontrolling interest. FAS No. 160 requires that a parent recognize a gain or loss in net income when a subsidiary is deconsolidated and requires expanded disclosures in the consolidated financial statements that clearly identify and distinguish between the interests of the parent owners and the interests of the noncontrolling owners of a subsidiary. FAS No. 160 is effective for fiscal periods, and interim periods within those fiscal years, beginning on or after December 15, 2008. The adoption of FAS No. 160 will not have an impact on the Company's financial statements.

In March 2008, FASB issued FAS No. 161, "Disclosures about Derivative Instruments and Hedging Activities - an amendment of FASB Statement No. 133" ("FAS 161"). FAS No. 161 changes the disclosure requirements for derivative instruments and hedging activities. Entities are required to provide enhanced disclosures about (a) how and why an entity uses derivative instruments, (b) how derivative instruments and related hedged items are accounted for under Statement 133 and its related interpretations, and (c) how derivative instruments and related hedged items affect an entity's financial position, financial performance, and cash flows. FAS No. 161 is effective for fiscal years and interim periods beginning after November 15, 2008. The Company is currently assessing the potential impact that the adoption of FAS 161 could have on its financial statements.

In June 2007, the EITF issued EITF Issue No. 07-03, "Accounting for Advance Payments for Goods or Services to Be Used in Future Research and Development," ("EITF 07-03"). EITF 07-03 addresses the accounting for the non-refundable portion of a payment made by a research and development entity for future research and development activities. Pursuant to EITF 07-03, an entity is required to defer and capitalize non-refundable advance payments made for research and development activities until the related goods are delivered or the related services are performed. EITF 07-03 is effective for fiscal years beginning after December 15, 2007. We adopted EITF 07-03 beginning in the first quarter of our 2008 fiscal year and it did not have a material impact to our financial position or results of operations.

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3. Marketable Securities

The following is a summary of marketable securities:

	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
December 31, 2008				
State authority auction rate bonds	\$ 3,550,000	\$ 0	\$ 550,250	\$ 2,999,750
	<u>\$ 3,550,000</u>	<u>\$ 0</u>	<u>\$ 550,250</u>	<u>\$ 2,999,750</u>
December 31, 2007				
State authority auction rate bonds	\$ 3,550,000	\$ 0	\$ 0	\$ 3,550,000
	<u>\$ 3,550,000</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 3,550,000</u>

The amortized cost and estimate fair value of marketable securities on December 31, 2008, by contractual maturities, are shown below:

	Cost	Estimated Fair Value
Due in one year or less	\$ 0	\$ 0
Due in two to ten years	0	0
Due in ten to twenty years	0	0
Due in twenty to forty years	3,550,000	2,999,750
	<u>\$ 3,550,000</u>	<u>\$ 2,999,750</u>

In January 2009, the Company redeemed all of its marketable securities at their cost of \$3,550,000.

4. Prepaid Expenses and Other

	December 31, 2008	December 31, 2007
Deposits on contracts	\$ 294,337	\$ 679,769
Other assets	72,428	37,436
	<u>\$ 366,765</u>	<u>\$ 717,205</u>

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5. Equipment, Net

	December 31, 2008	December 31, 2007
Furniture and fixtures	\$ 31,713	\$ 31,713
Office equipment	70,276	43,648
Lab and computer equipment	423,724	423,159
	525,713	498,520
Less: Accumulated depreciation	(433,501)	(395,569)
Net carrying amount	\$ 92,212	\$ 102,951

Depreciation expense was \$37,932 and \$47,042 for the years ended December 31, 2008 and 2007, respectively.

6. Intangible Assets, Net

On February 10, 2005, the Company entered into a licensing agreement with Revaax Pharmaceuticals LLC ("Revaax"), whereby the Company received an exclusive, worldwide, royalty bearing license, with the right to sub-license Revaax's licensed technology and products. The agreement called for an initial licensing fee of \$375,000 to be payable to Revaax in eight quarterly installments ending on November 10, 2006. Accordingly, the Revaax license has been measured at fair value at the date the licensing agreement was entered into. The fair value of the license component of \$356,216 was determined by discounting the stream of future quarterly payments of \$46,875 at 6%, the prevailing market rate for a debt instrument of comparable maturity and credit quality. The asset is amortized on a straight line basis over the estimated useful life of 20 years. The discount was accreted over the term of the liability, calculated based on the Company's estimated effective market interest rate of 6%. During 2006 the outstanding balance was paid. Amortization expense was \$17,811 and \$18,028 for the years ended December 31, 2008 and 2007 respectively. Management does not believe that there is an impairment of intangible assets at December 31, 2008.

The following table sets forth the intangible asset:

	December 31, 2008	December 31, 2007
Revaax license, original cost	\$ 356,216	\$ 356,216
Less: Accumulated amortization	(70,084)	(52,273)
Balance	\$ 286,132	\$ 303,943

Amortization over the next five (5) years and thereafter is as follows:

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2009	\$ 17,811
2010	17,811
2011	17,811
2012	17,811
2013	17,811
Thereafter	<u>197,077</u>
	<u>\$ 286,132</u>

7. Accounts Payable and Accrued Expenses

	December 31, 2008	December 31, 2007
Trade payables	\$ 136,906	\$ 246,786
Accrued expenses	98,486	259,871
Payroll liabilities	123,502	100,175
	<u>\$ 358,894</u>	<u>\$ 606,832</u>

8. Deferred Revenue

In 2003, the Company entered into a collaborative research agreement with Rexgene Biotech Co., Ltd. ("Rexgene"), a minority stockholder. 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, RX-0201, in Asia. This agreement provides Rexgene with exclusive rights to license, sublicense, make, have made, use, sell and import RX-0201 in Asia. A one-time contribution to the joint development and research of RX-0201 of \$1,500,000 was paid to the Company in 2003 in accordance with the agreement. The amount of revenue from this contribution is being recognized as income over the term of the agreement which terminates at the later of 20 years or the term of the patent on the licensed product.

The Company is using 20 years as its basis for recognition and accordingly \$75,000 was included in revenues for the years ended December 31, 2008 and 2007. The remaining \$1,050,000 at December 31, 2008 (2007 - \$1,125,000) is reflected as deferred revenue on the balance sheet. The Company adopted SAB No. 104, "Revenue Recognition Nonrefundable Up-front Fees" with respect to the accounting for this transaction. These fees are being used in the cooperative funding of the costs of development of RX-0201. Royalties of 3% of net sales of licensed products will become payable to the Company on a quarterly basis once commercial sales of RX-0201 begin. The product is still under development and commercial sales are not expected to begin until at least 2010.

9. Common Stock

The following transactions occurred during fiscal years 2001 through December 31, 2008:

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- a) On May 10, 2001 the Company issued 3,600,000 shares of common stock to the Company's founders for \$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 shareholders 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 of \$2,000,000.
- h) On October 29, 2004, 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 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. For purposes of the Statement of Stockholders' Equity, the five-for-one stock split is reflected as a one-line adjustment. All shares and earnings per share information has been retroactively restated in these financial statements.

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- j) On August 8, 2005, the Company issued, in a transaction exempt from registration under the Securities Act, 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 services.
- l) On December 2, 2005, the holders of a convertible note, representing \$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.

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- 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 of the private placement valued at \$1,103,164 on closing and were charged to additional paid in capital. Private placement closing costs of \$139,674, including 107,144 warrants issued, valued at \$91,119, were recorded as a reduction of the issuance proceeds.
- 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. The warrants were valued at \$220,004 and were charged to additional paid-in-capital.
- 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.
- bb) 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.

10. 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 5 and 10 years from the date of grant.

For grants to non-employee directors and consultants of the Company after September 12, 2005, the vesting period is between 1 to 3 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 and at December 31, 2008, 8,912,500 options 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.

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Accounting for Employee Awards

Effective January 1, 2006, the plan is accounted for in accordance with the recognition and measurement provisions of FAS No. 123R, which replaces FAS No. 123 and supersedes APB No. 25, and related interpretations.

The Company's results of operations for the year ended December 31, 2008 and 2007 include share-based employee compensation expense totaling \$253,198 and \$596,097, respectively. Such amounts have been included in the Statements of Operations in general and administrative and research and development expenses. No income tax benefit has been recognized in the Statements 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 in 2008 is the estimated fair value of options granted amortized on a straight-line basis over the requisite service period for the entire portion of the award.

Accounting for Non-Employee Awards

The Company previously accounted for options granted to its non-employee consultants and non-employee registered representatives using the fair value cost in accordance with FAS No. 123 and EITF 96-18. The adoption of FAS No. 123R and SAB No. 107, as of January 1, 2006, had no material impact on the accounting for non-employee awards. The Company continues to consider the additional guidance set forth in EITF Issue No. 96-18.

Stock compensation expenses related to non-employee options were \$231,487 and \$525,549 for the year ended December 31, 2008 and 2007, respectively. Such amounts have been included in the Statements of Operations in general and administrative and research and development expenses.

Total stock-based compensation recognized by the Company in the years ended December 31, 2008 and 2007, and the period from inception (March 19, 2001) to December 31, 2008, all of which relates to stock options and warrants, is as follows:

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Notes to the Financial Statements

December 31, 2008 and 2007

	Years ended		Inception (March 19, 2001) to December 31, 2008
	December 31, 2008	December 31, 2007	
Statement of Operations line item: General and administrative			
Payroll	\$ 60,350	\$ 408,731	\$ 1,157,078
Consulting and other professional fees	136,918	178,167	734,020
Research and development:			
Payroll	192,848	187,366	677,218
Consulting and other professional fees	94,568	347,382	1,288,518
Total	\$ 484,684	\$ 1,121,646	\$ 3,856,834

During the year ended December 31, 2008 and 2007, 2,005,000 and 525,000 stock options were granted with fair values of \$1,485,885 and \$2,335,325 respectively. 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 FAS No. 123(R) and SAB No. 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 110.

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

	Year Ended December 31,	
	2008	2007
Black-Scholes weighted average assumptions		
Expected dividend yield	0%	0%
Expected volatility	104 - 114%	100%
Risk free interest rate	1.55 - 2.98%	2.76 - 4.99%
Expected term (in years)	0.25 - 5 years	0.05 - 5 years

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Notes to the Financial Statements

December 31, 2008 and 2007

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

	2008		2007	
	Shares subject to Options	Weighted Avg. Option Prices	Shares Subject to Options	Weighted Avg. Option Prices
Outstanding at January 1	6,045,795	\$ 0.97	6,123,295	\$ 0.94
Granted	2,005,000	1.13	525,000	1.48
Exercised	(90,000)	0.35	(127,500)	0.47
Cancelled	(200,000)	1.33	(475,000)	1.29
Outstanding at December 31	7,760,795	\$ 1.01	6,045,795	\$ 0.97
Exercisable at December 31	5,366,795	\$ 0.92	3,877,795	\$ 0.87
Weighted Average Remaining Contractual Terms (Years)				
Outstanding	6.9		6.9	
Exercisable	6.7		6.7	

The intrinsic value of the options outstanding and exercisable was \$987,817 and \$849,767, respectively, at December 31, 2008. The intrinsic value of the options outstanding and exercisable was \$8,029,932 and \$5,521,496, respectively, at December 31, 2007.

As of December 31, 2008 and 2007, there was \$2,411,468 and \$1,410,269 of total unrecognized compensation cost, respectively, and 2,394,000 and 2,168,000 unvested stock options, respectively, which is expected to be recognized over a weighted average vesting period of 1.2 years and 1.8 years, respectively.

Warrants and Options

As at December 31, 2008, warrants to purchase 1,207,148 shares were outstanding, having an exercise price of \$1.80 per share with an average remaining contractual life of 2 years.

	2008		2007	
	Number of warrants	Weighted average exercise price	Number of warrants	Weighted average exercise price
Balance, January 1	1,078,576	\$ 1.80	-	\$ -
Issued during the period	128,572	\$ 1.80	1,078,576	\$ 1.80
Exercised during the period	-	\$ -	-	\$ -
Balance, December 31,	1,207,148	\$ 1.80	1,078,576	\$ 1.80

As at December 31, 2008 the range of exercise prices of the outstanding warrants and options were as follows:

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Notes to the Financial Statements

December 31, 2008 and 2007

Range of exercise prices	Number of warrants	Average remaining contractual life	Weighted average exercise price
\$1.80	1,207,148	2 years	\$1.80

Warrants were valued using the Black-Scholes model, using the weighted average key assumptions of volatility of 100%, a risk-free interest rate of 1.80% - 3.2%, a term equivalent to the life of the warrant, and reinvestment of all dividends in the Company of zero percent.

11. Income Taxes

No provision for Federal income taxes was required for the years ended December 31, 2008 and 2007, due to the Company's operating losses. At December 31, 2008 and 2007, the Company has unused net operating loss carry-forwards of approximately \$ 29,906,000 and \$24,994,000 which expire at various dates through 2028. Most of this amount is subject to annual limitations under certain provisions of the Internal Revenue Code related to "changes in ownership".

Income tax benefit differs from the amount computed by applying the federal statutory income tax rate of 35% to loss before income taxes due to the valuation allowance.

As of December 31, 2008 and 2007, 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:

	2008	2007
Net operating loss carry-forwards	\$ 11,364,336	\$ 9,554,013
Valuation allowance	(11,364,336)	(9,554,013)
	\$	\$
Net deferred tax assets	-	-

We file income tax returns in the U.S. federal and Maryland state jurisdictions. Tax years for fiscal 2005 through 2007 are open and potentially subject to examination by the federal and Maryland state taxing authorities.

12. 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 initiation fee and monthly or periodic payments over the terms of the agreement, ranging from 6 months to 24 months. The costs to be incurred are estimated and are subject to revision.

As of December 31, 2008 and 2007, the total dollar amount of these agreements was approximately \$3,125,000 and \$1,972,000 and the Company made payments totaling \$2,475,000 and \$1,353,000 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.

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Notes to the Financial Statements

December 31, 2008 and 2007

- b) The Company and three of its key executives entered into employment agreements. One of the two agreements was renewed on September 12, 2007 and results in an annual commitment of \$160,000 through September 12, 2009. The second agreement expires on September 12, 2010 and results in an annual commitment of \$350,000. The third agreement expires on July 13, 2009 and results in an annual commitment of \$200,000.
- c) In April 2004, the Company signed a 5 year lease for 8,030 square feet of office space in Rockville, Maryland from July 2004 to June 2009. The lease requires annual base rents of \$200,750 subject to annual increases of 3% of the preceding year's adjusted base rent. Under the leasing agreement, the Company also pays its allocable portion of real estate taxes and common area operating charges. Rent expense was \$222,656 and \$216,170, as of December 31, 2008 and 2007, respectively.

Minimum future rental payments under this lease as of December 31, 2008 total \$112,973 for fiscal year 2009.

- d) Regulation by governmental authorities in the United States and in other countries constitutes a significant consideration in our product development, manufacturing and marketing strategies. The Company expects that all of 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. United States federal regulations control the ongoing safety, manufacture, storage, labeling, record keeping, and marketing of all biopharmaceutical products intended for therapeutic purposes.
- e) On August 19, 2008, the Company entered into an agreement with KCSA Strategic Communications ("KCSA") for KCSA to provide investor relations services to the Company. Under this agreement, the Company agreed to pay KCSA a monthly fixed retainer amount of \$7,000 commencing August 19, 2008. In December 2008, the monthly retainer was reduced to \$4,000 per month. In accordance with the agreement, the contract may be terminated by either party upon thirty (30) days prior written notice to the other party.

13. Fair Value Measurements

The Company adopted Statement of Financial Accounting Standards ("FAS") No.157, "Fair Value Measurements" ("FAS 157") as of January 1, 2008. FAS 157 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. FAS 157 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;

REXAHN PHARMACEUTICALS, INC.

(A Development Stage Company)

Notes to the Financial Statements

December 31, 2008 and 2007

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 Company determines fair values for its investment assets as follows:

Investments, at fair value—The Company investments, at fair value, consists of marketable debt securities which are valued at market and classified within level 2 of the fair value hierarchy.

The following tables present our 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 as of December 31, 2008			
	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Assets:				
State Authority Auction Rate Bonds	\$ <u>2,999,750</u>	<u>-</u>	\$ <u>2,999,750</u>	<u>-</u>
Total Assets	\$ <u>2,999,750</u>	\$ <u>-</u>	\$ <u>2,999,750</u>	\$ <u>-</u>

14. Comparative Information

Certain amounts for the year-ended December 31, 2007 have been reclassified to conform with the current year's financial statement presentation.

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Exhibit Description</u>
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 Appendix H to the Company's Definitive Proxy Statement on Schedule 14A (File No. 000-50590) dated April 29, 2005, 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.
*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 September 12, 2005, by and between Rexahn Pharmaceuticals, Inc. and C. H. Ahn, filed as Exhibit 10.1 to the Company's Current Report on Form 8-KSB filed on September 12, 2005, is incorporated herein by reference.
*10.3.	Employment Agreement, effective September 12, 2007, by and between Rexahn Pharmaceuticals, Inc. and T. H. Jeong, filed as Exhibit 10 to the Company's Current Report on Form 8-KSB filed on October 9, 2007 is incorporated herein by reference.
10.4.	Research Collaboration Agreement dated February 6, 2003 by and between Rexahn Pharmaceuticals, Inc. and Rexgene Biotech Co., Ltd., filed as Exhibit 10.5 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, is incorporated herein by reference.
10.5.	Revaax License Agreement, dated February 8, 2005, by and between Rexahn Pharmaceuticals, Inc. and Revaax Pharmaceuticals LLC, filed as Exhibit 10.6 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005, is incorporated herein by reference.
10.6	Lease Agreement, dated April 26, 2004, by and between Red Gate III LLC and Rexahn Corporation, filed as Exhibit 10.3 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2007, is incorporated herein by reference..
10.7	Securities Purchase Agreement, dated as of November 19, 2007, by and between Rexahn Pharmaceuticals, Inc. and KT&G Corporation, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 21, 2007, is incorporated herein by reference.
10.8	Securities Purchase Agreement, dated as of November 20, 2007, by and between Rexahn Pharmaceuticals, Inc. and Rexgene Biotech Co., Ltd, filed as Exhibit 10.4 to the Company's Current Report on Form 8-K filed on November 21, 2007, is incorporated herein by reference.
10.9	Securities Purchase Agreement, dated as of December 17, 2007, by and between Rexahn Pharmaceuticals, Inc. and Jungwoo Family Co., Ltd, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 18, 2007, is incorporated herein by reference.
10.10	Securities Purchase Agreement, dated as of December 17, 2007, by and between Rexahn

<u>Exhibit Number</u>	<u>Exhibit Description</u>
10.11	Pharmaceuticals, Inc. and Kumho Investment Bank, filed as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 18, 2007, is incorporated herein by reference.
10.12	Securities Purchase Agreement, dated as of December 17, 2007, by and between Rexahn Pharmaceuticals, Inc. and the several parties thereto, filed as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on December 18, 2007, is incorporated herein by reference.
10.13	Warrant, dated December 24, 2007, issued to KT&G Corporation, filed as Exhibit 10.6 to the Company's Current Report on Form 8-K filed on December 26, 2007, is incorporated herein by reference.
10.14	Warrant, dated December 24, 2007, issued to Rexgene Biotech Co., Ltd., filed as Exhibit 10.7 to the Company's Current Report on Form 8-K filed on December 26, 2007, is incorporated herein by reference.
10.15	Form of Warrant, dated December 24, 2007, issued to the purchasers pursuant to the Jungwoo Securities Purchase Agreement, the Kumho Securities Purchase Agreement, the Individual Investor Securities Purchase Agreement and to a consultant, filed as Exhibit 10.4 to the Company's Current Report on Form 8-K filed on December 18, 2007, is incorporated herein by reference.
10.16	Registration Rights Agreement, dated as of December 24, 2007, by and among Rexahn Pharmaceuticals, Inc. and the purchasers pursuant to the KT&G Securities Purchase Agreement, the Rexgene Securities Purchase Agreement, the Jungwoo Securities Purchase Agreement, the Kumho Securities Purchase Agreement, the Individual Investor Securities Purchase Agreement and a consulting Services Agreement, filed as Exhibit 10.9 to the Company Current Report on Form 8-K filed on December 26, 2007, is incorporated herein by reference.
10.17	Securities Purchase Agreement, dated as of March 20, 2008, by and between Rexahn Pharmaceuticals, Inc. and Jungwoo Family Co., Ltd. (the "Jungwoo Securities Purchase Agreement"), filed as Exhibit 10.1 to the Company's current report on Form 8-K filed on March 26, 2008, is incorporated herein by reference.
10.18	Securities Purchase Agreement, dated as of March 20, 2008, by and between Rexahn Pharmaceuticals, Inc. and Super Bio Co. Ltd., (the "Super Bio Securities Purchase Agreement"), filed as Exhibit 10.2 to the Company's current report on Form 8-K filed on March 26, 2008, is incorporated herein by reference.
10.19	Form of Warrant for issuance pursuant to the Jungwoo Securities Purchase Agreement and the Super Bio Securities Purchase Agreement, filed as Exhibit 10.3 to the Company's current report on Form 8-K filed on March 26, 2008, is incorporated herein by reference.
*10.20	Employment Agreement, dated July 14, 2008, by and between Rexahn Pharmaceuticals, Inc. and Rakesh Soni, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on July 16, 2008, is incorporated herein by reference.
14	Consulting Agreement, dated August 12, 2008, by and between Rexahn Pharmaceuticals, Inc. and Y. Michelle Kang, filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 27, 2008, is incorporated herein by reference.
23.1	Code of Ethics and Business Conduct.
23.2	Consent of Parente Randolph, LLC, independent registered public accounting firm.
24.	Consent of Lazar Levine & Felix LLP, independent registered public accounting firm.
31.1.	Power of Attorney.
31.2.	Certification of Chief Executive Officer of Periodic Report Pursuant to Pursuant to Rule 13a-15(e) or Rule 15d-15(e).
	Certification of Chief Financial Officer of Periodic Report Pursuant to Pursuant to Rule 13a-15(e) or Rule 15d-15(e).

Exhibit
Number

Exhibit Description

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.

* Management contract or compensation plan or arrangement.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement of Rexahn Pharmaceuticals, Inc. on Form S-8 (Registration Statement No. 333-129294) of our report dated March 10, 2009 (which report expresses an unqualified opinion), relating to the financial statements of Rexahn Pharmaceuticals, Inc., and our report dated March 10, 2009 relating to internal control over financial reporting included in this Annual Report on Form 10-K of Rexahn Pharmaceuticals, Inc. for the year ended December 31, 2008.

/s/ Parente Randolph, LLC

New York, New York

March 13, 2009

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement of Rexahn Pharmaceuticals, Inc. on Form S-8 (Registration Statement No. 333-129294) of our report dated March 24, 2008 (which report expresses an unqualified opinion), relating to the financial statements of Rexahn Pharmaceuticals, Inc. included in this Annual Report on Form 10-K of Rexahn Pharmaceuticals, Inc. for the year ended December 31, 2008.

/s/ Lazar, Levine & Felix, LLP
New York, New York
March 13, 2009

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Tae Heum Jeong, a true and lawful attorney-in-fact and agent, with full power to him (including the full power of substitution and resubstitution), to sign for him or her and in his or her name, place and stead, in the capacity or capacities set forth below, (1) the Annual Report on Form 10-K for the fiscal year ended December 31, 2008 to be filed by Rexahn Pharmaceuticals, Inc. (the "Company") with the Securities and Exchange Commission (the "Commission") pursuant to Section 13 of the Securities Exchange Act of 1934, as amended, and (2) any amendments to the foregoing Annual Report, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Chang H. Ahn</u> Chang H. Ahn	Chairman and Chief Executive Officer	March 16, 2009
<u>/s/ Tae Heum Jeong</u> Tae Heum Jeong	Chief Financial Officer, Secretary and Director	March 16, 2009
<u>/s/ Freddie Ann Hoffman</u> Freddie Ann Hoffman	Director	March 16, 2009
<u>/s/ David McIntosh</u> David McIntosh	Director	March 16, 2009
<u>/s/ Charles Beever</u> Charles Beever	Director	March 16, 2009
<u>/s/ Kwang Soo Cheong</u> Kwang Soo Cheong	Director	March 16, 2009
<u>/s/ Y. Michele Kang</u> Y. Michele Kang	Director	March 16, 2009

CERTIFICATION

I, Chang H. Ahn, Chief Executive Officer of Rexahn Pharmaceuticals, Inc. certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2008 of Rexahn Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 16, 2009

/s/ Chang H. Ahn

Chang H. Ahn
Chief Executive Officer

CERTIFICATION

I, Tae Heum Jeong, Chief Financial Officer of Rexahn Pharmaceuticals, Inc. certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2008 of Rexahn Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 16, 2009

/s/ Tae Heum Jeong
Tae Heum Jeong
Chief Financial Officer

CERTIFICATION OF
CHIEF EXECUTIVE OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350

SECTION 1350 CERTIFICATION*

In connection with the Annual Report of Rexahn Pharmaceuticals, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2008 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Chang H. Ahn, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Dated: March 16, 2009

By: /s/ Chang H. Ahn
Chang H. Ahn,
Chief Executive Officer

* This Certification is being furnished as required by Rule 13a-14(b) under the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code, and shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section. This Certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except as otherwise stated in such filing.

A signed original of this written statement required by 18 U.S.C. § 1350 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION OF
CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350

SECTION 1350 CERTIFICATION*

In connection with the Annual Report of Rexahn Pharmaceuticals, Inc. (the “Company”) on Form 10-K for the fiscal year ended December 31, 2008 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Tae Heum Jeong, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Dated: March 16, 2009

By: /s/ Tae Heum Jeong
Tae Heum Jeong,
Chief Financial Officer

* This Certification is being furnished as required by Rule 13a-14(b) under the Securities Exchange Act of 1934 (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code, and shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section. This Certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except as otherwise stated in such filing.

A signed original of this written statement required by 18 U.S.C. § 1350 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.



➤ **Corporate Information:**

SECURITIES INFORMATION:

EXCHANGE: NYSE AMEX
TICKER: RNN

EXECUTIVE OFFICERS

Chang H. Ahn, Ph.D., Chairman
and Chief Executive Officer

Rick Soni, M.B.A., Chief Business
Officer

Tae Heum (Ted) Jeong, M.S.F, Chief
Financial Officer

BOARD OF DIRECTORS

Chang H. Ahn, Chairman

Charles G. Beever, Director

Kwang Soo Cheong, Director

Freddie Ann Hoffman, Director

Tae Heum (Ted) Jeong, Director

Y. Michele Kang, Director

David M. McIntosh, Director

CORPORATE COUNSEL:

Chadbourne & Parke LLP
1200 New Hampshire Avenue, N.W.
Washington, DC 20036

PUBLIC ACCOUNTING FIRM:

Parente Randolph, LLC
65 Madison Avenue, Suite 300
PO Box 2138
Morristown, NJ 07962-2138

CORPORATE HEADQUARTERS:

9620 Medical Center Drive
Rockville, MD 20850
(240) 268-5300

WEBSITE:

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