MANHATTAN PHARMACEUTICALS INC

FORM 10-K
(Annual Report)

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Address	810 SEVENTH AVENUE 4TH FLOOR NEW YORK, NY 10019
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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, 2009

☐ 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 1-32639

MANHATTAN PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware	36-3898269
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
48 Wall Street, 11th Floor, New York, New York	10005
(Address of Principal Executive Offices)	(Zip Code)

(212) 582-3950
(Registrant's telephone number, including area code)

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

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.001 par value	OTC Bulletin Board

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☐ Yes ☒ No
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. ☐ Yes ☒ No
Indicate by check mark whether the registrant (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No
Indicate by checkmark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding twelve months (or for such shorter period of time that the registrant was required to submit and post such files) ☐ Yes ☐ No
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☒

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

The aggregate market value of the voting and non-voting common equity of the registrant held by non-affiliates of the registrant on June 30, 2009 based on the closing price of the common stock as reported on the OTC Bulletin Board on such date was $5,833,629.

As of March 23, 2010 there were 114,079,527 outstanding shares of common stock, par value $.001 per share.

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References to the “Company,” the “Registrant,” “we,” “us,” or “our” or in this Annual Report on Form 10-K refer to Manhattan Pharmaceuticals, Inc., a Delaware corporation, and our consolidated subsidiaries, together taken as a whole, unless the context indicates otherwise.

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases such as “anticipate,” “estimate,” “plan,” “project,” “expect,” “may,” “intend” and similar words or phrases. Accordingly, these statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed in them. These statements are therefore subject to risks and uncertainties, known and unknown, which could cause actual results and developments to differ materially from those expressed or implied in such statements. Such risks and uncertainties relate to, among other factors:

- our ability to obtain adequate financing to continue our operations;
- the development of our pharmaceutical product candidates;
- the regulatory approval of our pharmaceutical product candidates;
- our use of clinical research centers and other contractors;
- our ability to find collaborative partners for research, development and commercialization of potential products;
- acceptance of our products by doctors, patients or payors;
- our ability to market any of our products;
- our history of operating losses;
- our ability to compete against other companies and research institutions;
- our ability to secure adequate protection for our intellectual property;
- our ability to attract and retain key personnel;
- availability of reimbursement for our products;
- the effect of potential strategic transactions on our business; and
- the volatility of our stock price.

Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

PART I

ITEM 1. BUSINESS

Overview

We are a specialty healthcare product company focused on developing and commercializing innovative treatments for underserved patient populations. We aim to acquire rights to these technologies by licensing or otherwise acquiring an ownership interest, funding their research and development and eventually either bringing the technologies to market or out-licensing. Our current portfolio of product candidates includes:

- Hedrin ™, a novel, non-insecticide treatment for pediculosis (head lice)
- AST-726, a nasally delivered form of hydroxocobalamin for the treatment of vitamin B_{12} deficiency
- AST-915, an oral treatment for essential tremor
- A topical GEL for the treatment of mild psoriasis

In the short term, we are focusing our efforts on the commercialization of Hedrin and AST-726. We have not received regulatory approval for, or generated commercial revenue from, marketing or selling any products.

Our executive offices are located at 48 Wall Street, 11 th floor, New York, NY 10005 USA. Our telephone number is (212) 582-3950 and our internet website address is www.manhattanpharma.com .

Recent Developments

On March 8, 2010, Manhattan Pharmaceuticals, Inc. (the “Company” or "Manhattan") entered into an Agreement and Plan of Merger (the "Merger Agreement") by and among the Company, Ariston Pharmaceuticals, Inc., a Delaware corporation ("Ariston") and Ariston Merger Corp., a Delaware corporation and wholly-owned subsidiary of the Company (the "Merger Sub"). Pursuant to the terms and conditions set forth in the Merger Agreement, on March 8, 2010, the Merger Sub merged with and into Ariston (the "Merger"), with Ariston being the surviving corporation of the Merger. As a result of the Merger, Ariston became a wholly-owned subsidiary of the Company.

The Company merged with Ariston principally to add new products to our portfolio. Ariston Pharmaceuticals, Inc. (“Ariston”) is a private, clinical stage specialty biopharmaceutical company based in Shrewsbury, Massachusetts that in-licenses, develops and plans to commercialize innovative treatments for underserved patient populations.

For more details about the Merger please see History.

Business Strategy

Our goal is to locate, develop, and commercialize specialty healthcare products. In order to achieve this, we look for innovative, or next generation, products with one or more of the following characteristics:

- Low clinical, regulatory, and/or marketing risk
- Quick to market (such as medical devices, 505(b)(2), or over-the-counter)
- Low cost to develop
- Low cost and/or simple to manufacture

- Serves a niche or underserved patient population

All of our current products meet some or all of these criteria.

Products

Hedrin

Hedrin is a novel, non-insecticide, one hour treatment for pediculosis (head lice) and is currently being developed in the United States as a prescription medical device. Hedrin is the top selling head lice product in Europe. It is currently marketed in over 27 countries and, according to Thornton & Ross Ltd. ("T&R"), achieved 2008 annual sales through its licensees of approximately $48 million (USD) at in-market public prices, garnering approximately 23% market share across Europe.

In June 2007, Manhattan Pharmaceuticals entered into an exclusive license agreement with Thornton & Ross Ltd ("T&R") and Kerris, S.A. ("Kerris") for Hedrin (the "Hedrin License Agreement"). We acquired an exclusive North American license to certain patent rights and other intellectual property relating to the product. In addition, and at the same time, we also entered into a Supply Agreement with T&R pursuant to which T&R will be the Company's exclusive supplier of Hedrin product (the "Hedrin Supply Agreement").

In February 2008, Manhattan Pharmaceuticals entered into a joint venture agreement with Nordic Biotech Advisors ApS ("Nordic") to develop and commercialize Hedrin for the North American market. The joint venture entity, H Pharmaceuticals ("H Pharmaceuticals" or the "Hedrin JV"), now owns, is developing, and is working to secure commercialization partners for Hedrin in both the United States and Canada. Manhattan Pharmaceuticals manages the day-to-day operations of the Hedrin JV under a management contract with the Hedrin JV. H Pharmaceuticals is independently funded and is responsible for all costs associated with the Hedrin project, including any necessary United States ("U.S.") clinical trials, patent costs, and future milestones owed to the original licensor, T&R.

Manhattan Pharmaceuticals, through the Hedrin JV, is currently working to secure commercialization and marketing partners for the U.S. and Canada.

Pediculosis (Head lice)

Head lice (*Pediculus humanus capitis*) are small parasitic insects that live mainly on the human scalp and neck hair. Head lice are not known to transmit disease, but they are highly contagious and are acquired by direct head-to-head contact with an infested person's hair, and may also be transferred with shared combs, hats, and other hair accessories. They can also live on bedding or upholstered furniture for a brief period. Head lice are seen across the socioeconomic spectrum and are unrelated to personal cleanliness or hygiene. Children are more frequently infested than are adults, and Caucasians more frequently than other ethnic groups. Lice are most commonly found on the scalp, behind the ears, and near the neckline at the back of the neck. Common symptoms include a tickling feeling of something moving in the hair, itching, irritability caused by poor sleep, and sores on the head caused by scratching.

Mechanism of Action

Hedrin is a novel, non-insecticide combination of silicones (dimethicone and cyclomethicone) that acts as a pediculicidal (lice killing) agent by disrupting the insect's mechanism for managing fluid and breathing. In contrast with most currently available lice treatments, Hedrin contains no chemical insecticides. Because Hedrin kills lice by preventing the louse from excreting waste fluid, rather than by acting on the central nervous system, the insects cannot build up resistance to the treatment. Recent studies have indicated that resistance to chemical insecticides may be increasing and therefore contributing to insecticide treatment failure. Manhattan Pharmaceuticals believes there is significant market potential for a convenient, non-insecticide treatment alternative. Both silicones in this proprietary formulation of Hedrin are used extensively in cosmetics and toiletries.

Product Development

To date, Hedrin has been clinically studied in over 400 subjects. In a randomized, controlled, equivalence, clinical study (conducted in Europe by T&R), Hedrin was administered to 253 adult and child subjects with head lice infestation. The study results, published in the British Medical Journal in June 2005, demonstrated Hedrin's equivalence when compared to the insecticide treatment, phenothrin, the most widely used pediculicide in the U.K. In addition, according to the same study, the Hedrin treated subjects experienced significantly less irritation (2%) than those treated with phenothrin (9%).

A clinical study published in the November 2007 issue of PLoS One, an international, peer-reviewed journal published by the Public Library of Science (PLoS), demonstrated Hedrin's superior efficacy compared to a U.K. formulation of malathion, a widely used insecticide treatment in both Europe and North America. In this randomized, controlled, assessor blinded, parallel group clinical trial, 73 adult and child subjects with head lice infestations were treated with Hedrin or malathion liquid. Using intent-to-treat analysis, Hedrin achieved a statistically significant cure rate of 70% compared to 33% with malathion liquid. Using the per-protocol analysis Hedrin achieved a highly statistically significant cure rate of 77% compared to 35% with malathion. In Europe, it has been widely documented that head lice has become resistant to malathion, and we believe this resistance may have influenced the study results. To date, there have been no reports of malathion resistance in the U.S. Additionally, Hedrin treated subjects experienced no irritant reactions, and Hedrin showed clinical equivalence to malathion in its ability to inhibit egg hatching. Overall, investigators and study subjects rated Hedrin as less odorous, easier to apply, and easier to wash out. In addition 97% of Hedrin treated subjects stated they were significantly more inclined to use the product again versus 31% of those using malathion.

Two unpublished Hedrin studies were completed by T&R in 2008. In the first, Hedrin achieved a 100% kill rate in vitro, including malathion resistant head lice. In the other, a clinical field study conducted in Manisa province, a rural area of Western Turkey, Hedrin was administered to 36 adult and child subjects with confirmed head lice infestations. Using per protocol analysis, Hedrin achieved a 97% cure rate. Using intent-to-treat analysis, Hedrin achieved a 92% cure rate since 2 subjects were eliminated due to protocol violations. No subjects reported any adverse events.

In April 2009, T&R published a new clinical field study where 40 adult and child subjects with head lice infestations were treated with Hedrin using a 1 hour application time. Treatment was given twice with 7 days between applications. In this study, Hedrin achieved a cure rate of 90%.

In the U.S., Manhattan Pharmaceuticals, through the Hedrin JV, is pursuing the development of Hedrin as a prescription medical device. In January 2009, the U.S. Food and Drug Administration ("FDA") Center for Devices and Radiological Health ("CDRH") notified H Pharmaceuticals that Hedrin had been classified as a Class III medical device. A Class III designation means that a Premarket Approval ("PMA") Application will need to be obtained before Hedrin can be marketed in the U.S. In July 2009, the CDRH division of the FDA confirmed that two pivotal studies, which can occur simultaneously, using the same protocol consisting of approximately 60 subjects each, or 120 patients in total, are required for the completion of the PMA Application. Manhattan Pharmaceuticals and the Hedrin JV are currently working to commence the pivotal study.

Market and Competition

According to the American Academy of Pediatrics an estimated 6-12 million Americans are infested with head lice each year, with pre-school and elementary children and their families affected most often. The total U.S. head lice market is estimated to be over $200 million with prescription and over-the-counter (OTC) therapies comprising approximately 50% of that market. The remaining 50% of the market is comprised of alternative therapies such as tea tree oils, mineral oils, and "nit picking", or physical combing to remove lice. In addition, the head lice market is experiencing an increasing trend toward healthier, more environmentally friendly consumer products and a growing activism against pesticide products. We believe there is significant market potential for a convenient, non-insecticide treatment for head lice.

The prescription and OTC segment of the market is dominated by 4-5 name brand products and numerous, low cost generics and store brand equivalents. The active ingredients in these pharmacological therapies are chemical insecticides. The most frequently prescribed insecticide treatments are Ovide (malathion) and Kwell (lindane), and the most frequently purchased OTC brands are Rid (piperonyl butoxide), Nix (permethrin), and Pronto (piperonyl butoxide). Lindane has been banned in 52 countries worldwide and has now been banned in the state of California due to its toxicity. In addition, New York, Michigan, and Minnesota have initiated legislation to ban the use of lindane. European formulations of malathion have experienced widespread resistance. Resistance to U.S. formulations of malathion have not been widely reported to date, but experts believe it is likely develop with continued use. Head lice resistance to piperonyl butoxide and permethrin has been reported in the U.S. and treatment failures are common.

See also "Management's Discussion and Analysis of Financial Condition and Results of Operations- Liquidity and Capital Resources- Research and Development Projects- Hedrin."

AST-726

AST-726 is a nasally delivered form of hydroxocobalamin for the treatment of Vitamin B_{12} deficiency. Manhattan Pharmaceuticals acquired global rights to AST-726 as part of the Ariston acquisition. AST-726 has demonstrated pharmacokinetic equivalence to a marketed intramuscular injection product for Vitamin B_{12} remediation. Manhattan Pharmaceuticals believes that AST-726 may enable both a single, once-monthly treatment for maintenance of normal Vitamin B_{12} levels in deficient patients, and more frequent administration to restore normal levels in newly diagnosed B_{12} deficiency. Further, Manhattan Pharmaceuticals believes that AST-726 could offer a convenient, painless, safe and cost-effective treatment for Vitamin B_{12} deficiency, without the need for intramuscular injections.

Vitamin B_{12} Deficiency - Background of the Disease

Untreated Vitamin B_{12} deficiency can result in serious clinical problems including hematological disorders, such as life-threatening anemias, and a range of central and peripheral neurological abnormalities such as fatigue, confusion, cognition impairment, dementia, depression, peripheral neuropathies and gait disturbances. Neuronal damage may involve peripheral nerves, the spinal cord and the brain and if the condition is left untreated may become permanent. Furthermore, clinically asymptomatic patients with low normal or below normal Vitamin B_{12} levels may have changes in blood chemistries, including elevated levels of methylmalonic acid or homocysteine, known risk factors for other medical conditions associated with an increased risk of circulatory problems, blood clots and cardiovascular disease.

The primary diagnosis of Vitamin B_{12} deficiency is made when measurement of its blood concentration falls below the expected normal range of 200 to 900 picograms/ml. Vitamin B_{12} deficiency is most often caused by pathological conditions that limit the body's ability to absorb the vitamin. Such disorders include pernicious anemia, atrophic gastritis, problems caused by gastric surgical procedures to treat stomach cancer and obesity, Crohn's disease and simple age-related changes. Some studies show the inability to properly absorb Vitamin B_{12} as a side effect from chronic use of certain widely prescribed antacid medications such as Prilosec ® and diabetes treatments such as Glucophage ®.

Product Development

AST-726, a commercial nasal spray formulation of hydroxocobalamin, has satisfactorily completed preclinical toxicology, and an Investigational New Drug ("IND") Application has been filed with the FDA. This product candidate is being developed utilizing the 505(b)(2) regulatory pathway. AST-726 has also successfully completed a safety and pharmacokinetic study in healthy volunteers and an end of Phase II meeting with FDA has been completed. Manhattan Pharmaceuticals is planning a Phase III Vitamin B_{12} replacement study in the United States. The study is designed to enroll approximately 40 Vitamin B_{12} deficient patients currently treated with injection therapy. Patients will first be evaluated on injection therapy and then will receive AST-726 by nasal spray on a monthly basis for 12 weeks. The primary purpose of this study is to determine that levels of Vitamin B_{12} in the patients' bloodstream remain within the normal range following monthly administration of AST-726. We anticipate that the data from this study and additional manufacturing information will support the planned 505(b)(2) new drug application ("NDA") filing for AST-726.

A CMC/manufacturing process has been developed for AST-726 that we believe provides a commercially viable stability profile. Manhattan Pharmaceuticals has two issued patents in the United States with respect to AST-726, one of which relates to its application in Vitamin B_{12} remediation.

Market and Competition

More than 9 million people in the US are deficient in Vitamin B_{12}, indicating substantial market potential for a facile, convenient, safe and effective treatment that can replace the need for painful and frequent intramuscular injections or other less than fully effective delivery forms.

Approximately 15% of the elderly and up to 40% of nursing home residents in the U.S. have Vitamin B_{12} deficiency. A study of over 11,000 U.S. civilians ages four and older found a 3% prevalence of Vitamin B_{12} deficiency in the general population using the 200 picograms/ml deficiency standard, indicating that approximately 9 million people in the U.S. are in need of B_{12} replacement therapy. Some experts advocate a higher deficiency standard of 300-350 picograms/ml on the basis that levels below this coincide with elevated methylmalonic acid and homocysteine, risk factors for cardiovascular disease as found in the Framingham Heart Study. On this basis the prevalence of Vitamin B_{12} deficiency increases substantially.

Manhattan Pharmaceuticals believes that substantial market opportunity also exists internationally.

Current Treatments for Vitamin B_{12} Deficiency

Once Vitamin B_{12} deficiency is diagnosed by a simple blood test, the goal of treatment is generally to:

- Restore circulating blood levels to normal as rapidly as possible;
- Replenish and normalize the substantial stores of the vitamin in the body; and
- Institute a lifelong therapeutic regimen that will maintain normal levels of the vitamin.

Manhattan Pharmaceuticals believes that parenteral (intramuscular injection) treatment is often considered the treatment of choice for Vitamin B_{12} deficiency. Cyanocobalamin is predominantly used for this purpose in the United States, but hydroxocobalamin, the active ingredient in AST-726, is also available for pediatrics and for adults for whom injection of cyanocobalamin is poorly tolerated. Hydroxocobalamin injection is the predominant treatment for Vitamin B_{12} deficiency in Europe.

In the United States, intramuscular injections are generally given by a physician or nurse, necessitating an office/medical center visit by the patient or a visiting nurse home call for each treatment. Following a diagnosis of B_{12} deficiency, injections are required quite frequently in order to restore normal vitamin levels. Once normalization is achieved, the frequency can be reduced to once or twice per month. While the treatment is usually highly effective, the inconvenience and cost of frequent office visits and the pain and side effects associated with intramuscular injections are problematic for many patients.

Intranasal treatment for Vitamin B_{12} deficiency seeks to alleviate these problems, but the two intranasal products currently available in the United States, Nascobal ® and Calomist ®, have to be administered on a daily or weekly basis and are not usually recommended for the treatment of newly diagnosed patients. Both products are based on cyanocobalamin.

Oral or sublingual administration of high doses of Vitamin B_{12} can restore deficient patients to normal in certain cases. Such high dose supplements are generally available in pharmacies and nutrition/health food stores. Adequate results can almost certainly be obtained when nutritional insufficiency (e.g., strict vegan diet) is the primary cause of the problem. However, the normal gastrointestinal tract has a very limited capability to absorb Vitamin B_{12} and if this is compromised, as is the case in many deficient patients, oral or sublingual supplementation may not be ideal for rapidly restoring circulating levels and storage depots of the vitamin to normal. In such cases of pathological Vitamin B_{12} deficiency, intramuscular injection still often remains the current treatment of choice.

An unapproved Vitamin B_{12} patch is available in the United States, but we believe that its effectiveness in moderate to severe Vitamin B_{12} deficient patients is substantially untested.

Potential Advantages of AST-726 Treatment

We believe that AST-726 treatment has the potential to directly substitute for and replace the need for injection treatment by applying the current injection frequency paradigms for both newly diagnosed and normalized Vitamin B_{12} deficient patients. AST-726 is proposed to be self-administered at home by the patient, without costly, time consuming, and inconvenient visits to a doctor's office or medical facility needed for each of the many intramuscular injections required for life. Because it is delivered through a nasal spray, additional advantages include freedom from injection pain and reduced anxiety in individuals, including children and the elderly, who may have fear of injections. Manhattan Pharmaceuticals believes that the delivery profile of AST-726 is comparable to that of the marketed intramuscular injection, and that therefore newly diagnosed patients will be able to self-administer the nasal spray on a daily basis or several times a week to restore their Vitamin B_{12} status to normal and will then be self-maintained on a single monthly nasal spray treatment.

AST-915

AST-915 is an orally delivered treatment for essential tremor. Manhattan Pharmaceuticals acquired global rights to AST-915 as part of the Ariston acquisition. This product candidate is being studied under a Cooperative Research and Development Agreement (CRADA) with the National Institutes of Health (NIH) and a Phase 1 clinical study is currently underway in essential tremor patients. AST-915 was formerly referred to as "AST-914 metabolite".

Essential Tremor

Essential tremor is a neurological disorder that is characterized by involuntary shaking of the hands, arms, head, voice, and upper body. The most disabling tremors occur during voluntary movement, affecting common skills such as writing, eating and drinking. Essential tremor is often misdiagnosed as Parkinson's disease, yet according to the National Institutes of Neurological Disorders and Stroke, approximately 8 times as many people have essential tremor as have Parkinson's. Essential tremor is not confined to the elderly. Children, newborns, and middle-aged people can also have the condition.

Market opportunity

Essential tremor is the most common involuntary movement disorder, with increasing incidence as people age. According to the National Institute of Health (NIH), essential tremor affects 14% of people 65 years and older, which equates to approximately 5.4 million Americans. There is no cure for essential tremor and the currently available drug therapies do not work in certain patients, produce at best a 50% response in others and have significant side effects. Manhattan Pharmaceuticals believes AST-915 may provide a new treatment option for this serious and prevalent disorder **.** Manhattan Pharmaceuticals believes that substantial market opportunity also exists internationally.

Topical GEL for Psoriasis

This topical GEL was used as the vehicle (placebo) in a prior clinical study versus a discontinued product candidate, topical PTH (1-34), and showed evidence of psoriasis improving properties. In that Phase 2a study 15% of study subjects achieved a clear or almost clear state at the end of week 2. At the end of week 4, 20% of subjects treated with the GEL had achieved a clear or almost clear state, and at the end of week 8, 25% of subjects treated with the GEL had achieved a clear or almost clear state. The Company owns global rights to this topical GEL and is exploring the possibility of developing it as an OTC product for mild psoriasis.

Psoriasis

Psoriasis is a common, chronic, immune-mediated disease that results in the over-production of skin cells. In healthy skin, immature skin cells migrate from the lowest layer of the epidermis to the skin's surface over a period of 28-30 days. In psoriasis, these cells reproduce at an extremely accelerated rate and advance to the surface in only 7 days. This results in a build up of excess, poorly differentiated skin cells that accumulate in dry, thick patches known as plaques. These plaques can appear anywhere on the body resulting in itching, skin irritation, and disability.

Market and Competition

According to the National Psoriasis Foundation approximately 125 million people worldwide, including approximately 6 million Americans, suffers from psoriasis. Of these, approximately 65% (4.4 million) have mild psoriasis and are the most likely of psoriasis sufferers to be treated with an OTC product. According to Datamonitor, only an estimated 55% of psoriasis sufferers have been formally diagnosed by a physician, so the OTC market could potentially be much larger.

There are a number of treatments available today for psoriasis, including numerous OTC creams and ointments that help to reduce inflammation, stop itching, and soothe skin. Products such as Psoriasin, CortAid, Dermarest, and Cortizone 10 are the most common, but none are viewed as particularly effective for psoriasis.

See also "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Research and Development Projects – Topical Psoriasis Product."

Discontinued Research and Development Programs

Altoderm ™

In April 2007 we entered into a license agreement with T&R, pursuant to which we acquired exclusive rights to develop and commercialize Altoderm in North America. Altoderm is a novel, proprietary formulation of topical cromolyn sodium and is designed to enhance the absorption of cromolyn sodium into the skin in order to treat pruritus (itch) associated with dermatologic conditions including atopic dermatitis (eczema).

In a Phase 3, randomized, double-blind, vehicle-controlled clinical study (conducted in Europe by T&R) Altoderm was safe and well tolerated, and showed a trend toward improvement in pruritus, but the efficacy results were inconclusive. Altoderm treated subjects and vehicle only treated subjects experienced a similar improvement (each greater than 30%), and therefore, the study did not achieve statistical significance.

As a result of the inconclusive European study data and a lack of sufficient funds to develop Altoderm, in March 2009 the Company discontinued development and returned the project to T&R under the terms of the license agreement.

Altolyn ™

In April 2007 we entered into a license agreement with T&R, pursuant to which we acquired exclusive rights to develop and commercialize Altolyn in North America. Altolyn is a novel, proprietary oral tablet formulation of cromolyn sodium designed to treat mastocytosis and possibly other gastrointestinal disorders such as food allergy and symptoms of irritable bowel syndrome.

Due to small market opportunity and lack of sufficient funds to develop Altolyn, in March 2009 the Company discontinued development and returned the project to T&R under the terms of the license agreement.

Oleoyl-estrone

On July 9, 2007 the Company announced the results of its two Phase 2a clinical trials of oral Oleoyl-estrone ("OE"). The results of both randomized, double-blind, placebo controlled studies, one in common obesity and the other in morbid obesity, demonstrated no statistically or clinically meaningful placebo adjusted weight loss for any of the treatment arms evaluated. Based on these results, the Company discontinued its OE programs in both common obesity and morbid obesity.

Propofol Lingual Spray

On July 9, 2007 the Company announced that it discontinued development of Propofol Lingual Spray for pre-procedural sedation.

Commercialization, Marketing, and Sales

In order to maximize the commercial value of our product candidates, it is likely that we will partner with, and/or out-license the marketing rights to, a marketing organization with expertise in the therapeutic areas we operate in. We are currently working to secure a marketing partner for Hedrin in both the United States and Canada. Longer term, we may explore the possibility of securing commercialization partners for AST-726, AST-915, and the topical GEL in the United States and global territories.

Intellectual Property and License Agreements

Our goal is to obtain, maintain and enforce patent protection for our products, formulations, processes, methods and other proprietary technologies, preserve our trade secrets, and operate without infringing on the proprietary rights of other parties, both in the United States and in other countries. Our policy is to actively seek to obtain, where appropriate, the broadest intellectual property protection possible for our product candidates, proprietary information and proprietary technology through a combination of contractual arrangements and patents, both in the U.S. and elsewhere in the world.

We also depend upon the skills, knowledge and experience of our scientific and technical personnel, as well as that of our advisors, consultants and other contractors. This knowledge and experience we call "know-how". To help protect our proprietary know-how which is not patentable, and for inventions for which patents may be difficult to enforce, we rely on trade secret protection and confidentiality agreements to protect our interests. To this end, we require all employees, consultants, advisors and other contractors to enter into confidentiality agreements which 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.

Hedrin

On June 26, 2007, the Company entered into an exclusive license agreement for Hedrin ("the Hedrin Agreement') with T&R and Kerris. Pursuant to the Hedrin Agreement, the Company has acquired an exclusive North American license to certain patent rights and other intellectual property relating to Hedrin ™, a non-insecticide product candidate for the treatment of pediculosis ("head lice"):

U.S. Patent Application No. 2007/0142330, entitled, "Method and composition for the control of arthropods." Jayne Ansell, Inventor. Application filed February 12, 2007. This application is a divisional of U.S. application Ser. No. 10/097,615, filed Mar. 15, 2002, which is a continuation of International Application No. PCT/GB00/03540, which designated the United States and was filed on Sep. 14, 2000. This application has not yet issued as a patent. Any patent that issues will expire on September 14, 2020.

This patent application has numerous, detailed and specific claims related to the use of Hedrin (novel formulation of silicon derivatives) in controlling and repelling arthropods such as insects and arachnids, and in particular control and eradication of head lice and their ova.

On February 25, 2008 the Company assigned and transferred its rights in Hedrin to the Hedrin JV. The Hedrin JV is now responsible for all of the Company's obligations under the Hedrin License Agreement and the Hedrin Supply Agreement.

AST-726

Pursuant to the Merger Agreement with Ariston, the Company has acquired patent rights and other intellectual property relating to AST-726:

1. U.S. Patent No. 5,801,161 entitled, “Pharmaceutical composition for the intranasal administration of hydroxocobalamin.” Franciscus W.H.M. Merkus, Inventor. Application filed June 17, 1996. Patent issued September 1, 1998. This patent is scheduled to expire on May, 13, 2014.

2. U.S. Patent No. 5,925,625 entitled, “Pharmaceutical composition for the intranasal administration of hydroxocobalamin.” Franciscus W.H.M. Merkus, Inventor. Application filed December 30, 1997. Patent issued July 20, 1999. This patent is scheduled to expire on May, 13, 2014.

3. European Patent No. EP0735859B1 (granted July 30, 1997, national phase of PCT Publication No. WO9517164) entitled, “Pharmaceutical composition for the intranasal administration of hydroxocobalamin.” Franciscus W.H.M. Merkus, Inventor. Application filed May 13, 1994. Patents validated in Great Britain, Austria, Belgium, Denmark, France, Ireland, Italy, the Netherlands, Switzerland, Germany, Spain, and Sweden are scheduled to expire on May, 13, 2014.

AST-915

Pursuant to the Merger Agreement with Ariston, the Company has acquired patent rights and other intellectual property relating to AST-915:

U.S. Patent Application No. PCT/US2009/000876 entitled “Octanoic acid formulations and methods of treatment using the same.” McLane, Nahab, and Hallet, Inventors. Application filed February 12, 2009. This applications has not yet issued as a patent.

Manufacturing

We do not have any manufacturing capabilities. T&R will supply any Hedrin product required to conduct human clinical studies, and we are in contact with several contract cGMP manufacturers for the supply of AST-726, AST-915, and the topical GEL for psoriasis.

Government Regulations

The research, development, testing, manufacture, labeling, promotion, advertising, distribution, and marketing, among other things, of our products are extensively regulated by governmental authorities in the United States and other countries. In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or the FDCA, and its implementing regulations. Failure to comply with the applicable U.S. requirements may subject us to administrative or judicial sanctions, such as FDA refusal to approve pending NDAs, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, and/or criminal prosecution.

Drug Approval Process. None of our drugs may be marketed in the U.S. until the drug has received FDA approval. The steps required before a drug may be marketed in the U.S. include:

- nonclinical laboratory tests, animal studies, and formulation studies,
- submission to the FDA of an Investigational New Drug application (IND) or, in the case of medical devices, an Investigational Device Exemption (IDE), for human clinical testing, which must become effective before human clinical trials may begin,
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug for each indication,
- submission to the FDA of a New Drug Application (NDA) or, in the case of medical devices a Premarket Approval (PMA),

- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with current good manufacturing practices, or cGMPs, and
- FDA review and approval of the NDA or PMA.

Nonclinical tests include laboratory evaluation of product chemistry, toxicity, and formulation, as well as animal studies. The conduct of the nonclinical tests and formulation of the compounds for testing must comply with federal regulations and requirements. The results of the nonclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND or IDE, which must become effective before human clinical trials may begin. An IND/IDE will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions about issues such as the conduct of the trials as outlined in the IND/IDE. In such a case, the IND/IDE sponsor and the FDA must resolve any outstanding FDA concerns or questions before clinical trials can proceed. We cannot be sure that submission of an IND/IDE will result in the FDA allowing clinical trials to begin.

Clinical trials involve the administration of the investigational drug or medical device to human subjects under the supervision of qualified investigators. Clinical trials are conducted under protocols detailing the objectives of the study, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND/IDE.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap. The study protocol and informed consent information for study subjects in clinical trials must also be approved by an Institutional Review Board for each institution where the trials will be conducted. Study subjects must sign an informed consent form before participating in a clinical trial. Phase 1 usually involves the initial introduction of the investigational drug into people to evaluate its short-term safety, dosage tolerance, metabolism, pharmacokinetics and pharmacologic actions, and, if possible, to gain an early indication of its effectiveness. Phase 2 usually involves trials in a limited patient population to (i) evaluate dosage tolerance and appropriate dosage; (ii) identify possible adverse effects and safety risks; and (iii) preliminarily evaluate the efficacy of the drug for specific indications. Phase 3 trials usually further evaluate clinical efficacy and test further for safety by using the drug in its final form in an expanded patient population. There can be no assurance that Phase 1, Phase 2, or Phase 3 testing will be completed successfully within any specified period of time, if at all. Furthermore, we or the FDA may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

The FDCA permits FDA and the IND/IDE sponsor to agree in writing on the design and size of clinical studies intended to form the primary basis of an effectiveness claim in an NDA or PMA application. This process is known as Special Protocol Assessment, or SPA. These agreements may not be changed after the clinical studies begin, except in limited circumstances.

Assuming successful completion of the required clinical testing, the results of the nonclinical and clinical studies, together with other detailed information, including information on the manufacture and composition of the drug, are submitted to the FDA in the form of a NDA or PMA requesting approval to market the product for one or more indications. The testing and approval process requires substantial time, effort, and financial resources. The agencies review the application and may deem it to be inadequate to support the registration and we cannot be sure that any approval will be granted on a timely basis, if at all. The FDA may also refer the application to the appropriate advisory committee, typically a panel of clinicians, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendations of the advisory committee.

The FDA has various programs, including fast track, priority review, and accelerated approval, that are intended to expedite or simplify the process for reviewing drugs, and/or provide for approval on the basis surrogate endpoints. Generally, drugs that may be eligible for one or more of these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs, and those that provide meaningful benefit over existing treatments. We cannot be sure that any of our drugs will qualify for any of these programs, or that, if a drug does qualify, that the review time will be reduced.

Section 505(b)(2) of the FDCA allows the FDA to approve a follow-on drug on the basis of data in the scientific literature or data used by FDA in the approval of other drugs. This procedure potentially makes it easier for generic drug manufacturers to obtain rapid approval of new forms of drugs based on proprietary data of the original drug manufacturer. We intend to rely on Section 505(b)(2) to obtain approval for AST-726.

Before approving an NDA or a PMA, the FDA usually will inspect the facility or the facilities at which the drug is manufactured, and will not approve the product unless cGMP compliance is satisfactory. If the FDA evaluates the NDA/PMA and the manufacturing facilities as acceptable, the FDA may issue an approval letter, or in some cases, an approvable letter followed by an approval letter. Both letters usually contain a number of conditions that must be met in order to secure final approval of the NDA/PMA. When and if those conditions have been met to the FDA's satisfaction, the FDA will issue an approval letter. The approval letter authorizes commercial marketing of the drug for specific indications. As a condition of NDA/PMA approval, the FDA may require post marketing testing and surveillance to monitor the drug's safety or efficacy, or impose other conditions.

After approval, certain changes to the approved product, such as adding new indications, making certain manufacturing changes, or making certain additional labeling claims, are subject to further FDA review and approval. Before we can market our product candidates for additional indications, we must obtain additional approvals from FDA. Obtaining approval for a new indication generally requires that additional clinical studies be conducted. We cannot be sure that any additional approval for new indications for any product candidate will be approved on a timely basis, or at all.

Post-Approval Requirements . Often times, even after a drug has been approved by the FDA for sale, the FDA may require that certain post-approval requirements be satisfied, including the conduct of additional clinical studies. If such post-approval conditions are not satisfied, the FDA may withdraw its approval of the drug. In addition, holders of an approved NDA or PMA are required to: (i) report certain adverse reactions to the FDA, (ii) comply with certain requirements concerning advertising and promotional labeling for their products, and (iii) continue to have quality control and manufacturing procedures conform to cGMP after approval. The FDA periodically inspects the sponsor's records related to safety reporting and/or manufacturing facilities; this latter effort includes assessment of compliance with cGMP. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. We intend to use third party manufacturers to produce our products in clinical and commercial quantities, and future FDA inspections may identify compliance issues at the facilities of our contract manufacturers that may disrupt production or distribution, or require substantial resources to correct. In addition, discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved NDA/PMA, including withdrawal of the product from the market.

Non-United States Regulation . Before our products can be marketed outside of the United States, they are subject to regulatory approval similar to that required in the United States, although the requirements governing the conduct of clinical trials, including additional clinical trials that may be required, product licensing, pricing and reimbursement vary widely from country to country. No action can be taken to market any product in a country until an appropriate application has been approved by the regulatory authorities in that country. The current approval process varies from country to country, and the time spent in gaining approval varies from that required for FDA approval. In certain countries, the sales price of a product must also be approved. The pricing review period often begins after market approval is granted. Even if a product is approved by a regulatory authority, satisfactory prices may not be approved for such product.

In Europe, marketing authorizations may be submitted at a centralized, a decentralized or national level. The centralized procedure is mandatory for the approval of biotechnology products and provides for the grant of a single marketing authorization that is valid in all European Union ("EU") member states. As of January 1995, a mutual recognition procedure is available at the request of the applicant for all medicinal products that are not subject to the centralized procedure. There can be no assurance that the chosen regulatory strategy will secure regulatory approvals on a timely basis or at all.

History

We were incorporated in Delaware in 1993 under the name "Atlantic Pharmaceuticals, Inc." and, in March 2000, we changed our name to "Atlantic Technology Ventures, Inc." In 2003, we completed a "reverse acquisition" of privately held "Manhattan Research Development, Inc." In connection with this transaction, we also changed our name to "Manhattan Pharmaceuticals, Inc." From an accounting perspective, the accounting acquirer is considered to be Manhattan Research Development, Inc. and accordingly, the historical financial statements are those of Manhattan Research Development, Inc.

On March 8, 2010, Manhattan Pharmaceuticals, Inc. entered into an Agreement and Plan of Merger by and among the Company, Ariston Pharmaceuticals, Inc., a Delaware corporation and Ariston Merger Corp., a Delaware corporation and wholly-owned subsidiary of the Company. Pursuant to the terms and conditions set forth in the Merger Agreement, on March 8, 2010, the Merger Sub merged with and into Ariston (the "Merger"), with Ariston being the surviving corporation of the Merger. As a result of the Merger, Ariston became a wholly-owned subsidiary of the Company.

Under the terms of the Merger Agreement, the consideration payable by the Company to the stockholders and note holders of Ariston consists of the issuance of 7,062,423 shares of the Company's common stock, par value $0.001 per share, ("Common Stock") at Closing (as defined in the Merger Agreement) *plus* the right to receive up to an additional 24,718,481 shares of Common Stock (the "Milestone Shares") upon the achievement of certain product-related milestones described below. In addition, the Company has reserved 38,630,723 shares of its Common Stock for possible future issuance in connection with the conversion of $15.45 million of outstanding Ariston convertible promissory notes. The note holders will not have any recourse to the Company for repayment of the notes (their sole recourse being to Ariston), but the note holders will have the right to convert the notes into shares of the Company's Common Stock at the rate of $0.40 per share. Further, the Company has reserved 5,000,000 shares of its Common Stock for possible future issuance in connection with the conversion of $1.0 million of outstanding Ariston convertible promissory note issued in satisfaction of a trade payable. The note holder will not have any recourse to the Company for repayment of the note (their sole recourse being to Ariston), but the note holder will have the right to convert the note into shares of the Company's Common Stock at the rate of $0.20 per share.

Upon the achievement of the milestones described below, the Company would be obligated to issue portions of the Milestone Shares to the former Ariston stockholders and noteholders:

- Upon the affirmative decision of the Company' Board of Directors, provided that such decision is made prior to March 8, 2011, to further develop the AST-914 metabolite product candidate, either internally or through a corporate partnership, the Company would issue 8,828,029 of the Milestone Shares.

- Upon the acceptance by the FDA of the Company's filing of the first New Drug Application for the AST-726 product candidate, the Company would issue 7,062,423 of the Milestone Shares.
- Upon the Company receiving FDA approval to market the AST-726 product candidate in the United States of America, the Company would issue 8,828,029 of the Milestone Shares.

During 2005 we merged with Tarpan Therapeutics, Inc. ("Tarpan"). Tarpan was a privately held New York based biopharmaceutical company developing dermatological therapeutics. This transaction was accounted for as a purchase of Tarpan by the Company.

Employees

We currently have 2 full time and 2 part time employees, including: our Chief Operating and Financial Officer, the Chief Executive Officer of Ariston and 2 persons in business development, clinical management, administration and finance. None of our employees is covered by a collective bargaining unit. We believe our relations with our employees are satisfactory.

Additional Public Information

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance with such laws we file annual, quarterly and current reports and other information with the Securities and Exchange Commission (the "SEC"). The SEC maintains a website that contains annual, quarterly and current reports, proxy and information statements and other information filed with the SEC. The SEC's website address is www.sec.gov . You may also read and copy any document we file with the SEC at the SEC's public reference room, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of its public reference room. The information we file with the SEC and other information about us is also available on our website at www.manhattanpharma.com . However, the information on our website is not a part of, nor is such information to be deemed incorporated by reference into, this report.

ITEM 1A. RISK FACTORS

An investment in our securities is speculative in nature, involves a high degree of risk, and should not be made by an investor who cannot bear the economic risk of its investment for an indefinite period of time and who cannot afford the loss of its entire investment. You should carefully consider the following risk factors and the other information contained elsewhere in this Annual Report before making an investment in our securities.

Risks Related to Our Business

We currently have no product revenues and will need to raise substantial additional funds in the future. If we are unable to obtain the funds necessary to continue our operations, we will be required to delay, scale back or eliminate one or more of our remaining drug development programs and may not continue as a going concern.

We have generated no product revenues to date and will not until, and if, we receive approval from the FDA and other regulatory authorities for any of our four product candidates. We have already spent substantial funds developing our potential products and business, however, and we expect to continue to have negative cash flow from our operations for at least the next several years. As of December 31, 2009, we had $17,996 of cash and cash equivalents. We received additional funding of approximately $2.2 million from a financing transaction in March 2010. We expect that such financing shall be sufficient to fund our operations through the end of 2010. We will still have to raise substantial additional funds to complete the development of our product candidates and to bring them to market. Beyond the capital requirements mentioned above, our future capital requirements will depend on numerous factors, including:

- the results of any clinical trials;
- the scope and results of our research and development programs;
- the time required to obtain regulatory approvals;
- our ability to establish and maintain marketing alliances and collaborative agreements; and
- the cost of our internal marketing activities.

Our history of operating losses and lack of product revenues may make it difficult to raise capital on acceptable terms or at all. If adequate funds are not available, we will be required to delay, scale back or eliminate one or more of our drug development programs or obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies or products that we would not otherwise relinquish. Our Independent Registered Public Accounting Firm has concluded that our net losses, negative cash flow, accumulated deficit and negative working capital as of December 31, 2009, raise substantial doubt about our ability to continue as a going concern. The inclusion of a going concern explanatory paragraph in the report of our Independent Registered Public Accounting Firm will make it more difficult for us to secure additional financing or enter into strategic relationships with distributors on terms acceptable to us, if at all, and likely will materially and adversely affect the terms of any financing that we may obtain.

We have incurred substantial losses and negative cash flow from operations.

We have a history of losses and expect to incur substantial losses and negative operating cash flow for the foreseeable future, and we may never achieve or maintain profitability. We have incurred losses in every period since our inception on August 6, 2001. For the year ended December 31, 2009 and for the period from August 6, 2001 (inception) through December 31, 2009, we incurred net losses applicable to common shares of $2,793,285, and $61,933,435 respectively. Even if we succeed in developing and commercializing one or more of our product 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 as we:

- continue to undertake nonclinical development and clinical trials for our product candidates;
- seek regulatory approvals for our product candidates;
- implement additional internal systems and infrastructure;
- lease additional or alternative office facilities; and
- hire additional personnel.

We also expect to experience negative cash flow for the foreseeable future as we fund our operating losses and capital expenditures. As a result, we will need to generate significant revenues in order to achieve and maintain profitability. We may not be able to generate these revenues or achieve profitability in the future. Our failure to achieve or maintain profitability could negatively impact the value of our Common Stock.

As a result of our continued losses, our Independent Registered Public Accounting Firm has included an explanatory paragraph in our financial statements for the fiscal years ended December 31, 2009 and 2008, expressing doubt as to our ability to continue as a going concern. The inclusion of a going concern explanatory paragraph in the report of our Independent Registered Public Accounting Firm will make it more difficult for us to secure additional financing or enter into strategic relationships with distributors on terms acceptable to us, if at all, and likely will materially and adversely affect the terms of any financing that we may obtain. If we fail to generate revenues, or if operating expenses exceed our expectations or cannot be adjusted accordingly, we may not achieve profitability and the value of your investment could decline significantly.

We have a limited operating history upon which to base an investment decision.

We are a development-stage company and have not yet demonstrated any ability to perform the functions necessary for the successful commercialization of any product candidates. The successful commercialization of our product candidates will require us to perform a variety of functions, including:

- continuing to undertake nonclinical development and clinical trials;
- participating in regulatory approval processes;
- formulating and manufacturing products; and
- conducting sales and marketing activities.

Since inception as Manhattan Research Development, Inc., our operations have been limited to organizing and staffing, and acquiring, developing and securing our proprietary technology and undertaking nonclinical and clinical trials of principal product candidates. These operations provide a limited basis for you to assess our ability to commercialize our product candidates and the advisability of investing in our securities.

We have not engaged financial advisors to evaluate the fairness of the consideration being paid to the stockholders and noteholders of Ariston in connection with the Ariston Merger. We can provide no assurance that the fair value of the securities being paid to the stockholders and noteholders of Ariston in the Ariston Merger will not exceed the fair value of the assets acquired.

Ariston has approximately $16.5 million indebtedness prior to the Ariston Merger.

In connection with the Ariston Merger, the merger subsidiary of the combined company will assume Ariston's indebtedness of approximately $16.5 million. Such indebtedness may negatively impact our ability to raise sufficient additional capital to fund our operations.

Ariston may have liabilities that were unknown at the time of the consummation of the Ariston Merger that became liabilities of the Company's upon consummation of the Ariston Merger.

There may be liabilities of Ariston and/or its affiliates that were unknown at the time of the consummation of the Ariston Merger. As a result of the Ariston Merger, any such unknown liabilities may become liabilities of the combined company. In the event any such liabilities become known following the Ariston Merger, they may lead to claims against a subsidiary of the combined company, including but not limited to lawsuits, administrative proceedings, and other claims. Any such liabilities may subject the combined company to increased expenses for attorneys' fees, fines, litigation expenses, and expenses associated with any subsequent settlements or judgments. There can be no assurances that such unknown liabilities do not exist. To the extent that such liabilities become known following the Ariston Merger, any such liability-related expenses may materially impact the combined company's financial condition and results of operations.

We depend greatly on the intellectual capabilities and experience of our key executives, and the loss of any of them could affect our ability to develop our remaining products.

We had only two full-time and two part-time employees as of March 30, 2010. The loss of either Michael G. McGuinness, our Chief Operating and Financial Officer, or Malcolm Morville, Chief Executive Officer of Ariston, could harm us. Mr. McGuinness' employment agreement with the Company expired in July 2009. Mr. Morville's employment agreement with Ariston expired upon consummation of the Ariston Merger. Messrs. McGuinness and Morville have been working for the Company and Ariston, respectively, on the same terms and conditions that were set forth in the employment agreements that expired. We cannot predict our success in hiring or retaining the personnel we require for continued operations.

We may not obtain the necessary U.S. or worldwide regulatory approvals to commercialize our product candidates.

We will need FDA approval to commercialize our product candidates in the U.S. and approvals from the FDA equivalent regulatory authorities in foreign jurisdictions to commercialize our product candidates in those jurisdictions. In order to obtain FDA approval of any of our product candidates, we must first submit to the FDA an IND, which will set forth our plans for clinical testing of our product candidates. In September 2007, the FDA accepted our IND for Topical PTH(1-34). Our remaining two products, Hedrin and the Topical GEL for psoriasis are currently considered pre-clinical. We are unable to estimate the size and timing of the clinical and non clinical trials required to bring our two product candidates to market and, accordingly, cannot estimate the time when development of these product candidates will be completed.

When the clinical testing for our product candidates is complete, we will submit to the FDA a NDA demonstrating that the product candidate is safe for humans and effective for its intended use. This demonstration requires significant research and animal tests, which are referred to as nonclinical studies, as well as human tests, which are referred to as clinical trials. Satisfaction of the FDA's regulatory requirements typically takes many years, depends upon the type, complexity and novelty of the product 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. The FDA has substantial discretion in the drug approval process and may require us to conduct additional nonclinical and clinical testing or to perform post-marketing studies. The approval process may also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals may:

- delay commercialization of, and our ability to derive product revenues from, our product candidates;
- impose costly procedures on us; and
- diminish any competitive advantages that we may otherwise enjoy.

Even if we comply with all FDA requests, the FDA may ultimately reject any or all of our future NDAs. We cannot be sure that we will ever obtain regulatory clearance for any of our product candidates. Failure to obtain FDA approval of any of our product candidates will severely undermine our business by reducing our number of salable products and, therefore, corresponding product revenues.

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 have not yet made any determination as to which foreign jurisdictions we may seek approval and have not undertaken any steps to obtain approvals in any foreign jurisdiction.

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 product candidates will take at least several 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:

- unforeseen safety issues;
- determination of dosing issues;
- lack of effectiveness during clinical trials;
- slower than expected rates of patient recruitment;
- inability to monitor patients adequately during or after treatment; and
- inability or unwillingness of medical investigators to follow our clinical protocols.

In addition, we or the FDA may suspend our 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.

The results of our clinical trials may not support our product candidate claims.

Even if our clinical trials are completed as planned, we cannot be certain that their results will support our product candidate claims. Success in nonclinical 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 nonclinical testing. The clinical trial process may fail to demonstrate that our product candidates are safe for humans or effective for indicated uses. This failure would cause us to abandon a product candidate and may delay development of other product candidates. Any delay in, or termination of, our clinical trials will delay the filing of our NDAs with the FDA and, ultimately, our ability to commercialize our product candidates and generate product revenues. In addition, we anticipate that our clinical trials will involve only a small patient population. Accordingly, the results of such trials may not be indicative of future results over a larger patient population.

Physicians and patients may not accept and use our products.

Even if the FDA approves our product candidates, physicians and patients may not accept and use them. Acceptance and use of our product will depend upon a number of factors including:

- perceptions by members of the health care community, including physicians, about the safety and effectiveness of our drugs;
- cost-effectiveness of our product relative to competing products;
- availability of reimbursement for our products from government or other healthcare payers; and
- effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any.

Because we expect sales of our current product 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.

Our product-development program depends upon third-party researchers who are outside our control.

We currently are collaborating with several third-party researchers, for the development of our product candidates. Accordingly, the successful development of our product candidates will depend on the performance of these third parties. These collaborators will not be our employees, however, and we cannot control the amount or timing of resources that they will devote to our programs. Our collaborators may not assign as great a priority to our programs or pursue them as diligently as we would if we were undertaking such programs ourselves. If outside collaborators fail to devote sufficient time and resources to our drug-development programs, or if their performance is substandard, the approval of our FDA applications, if any, and our introduction of new drugs, if any, will be delayed. These collaborators may also have relationships with other commercial entities, some of whom 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 product candidates.

We have no experience in drug formulation or manufacturing and do not intend to establish our own manufacturing facilities. We lack the resources and expertise to formulate or manufacture our own product candidates. We intend to contract with one or more manufacturers to manufacture, supply, store and distribute drug supplies for our clinical trials. If any of our product candidates receive FDA approval, we will rely on one or more third-party contractors to manufacture our drugs. Our anticipated future reliance on a limited number of third-party manufacturers, exposes us to the following 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, 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, if any.
- Our future 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, 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.
- 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.

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

We currently have no sales, marketing or distribution capabilities. We do not anticipate having the resources in the foreseeable future to allocate to the sales and marketing of our proposed products. Our future success depends, in part, on our ability to enter into and maintain such collaborative relationships, the collaborator's strategic interest in the products under development and such collaborator's ability to successfully market and sell any such products. We intend to pursue collaborative arrangements regarding the sales and marketing of our products, however, there can be no assurance that we will be able to establish or maintain such collaborative arrangements, or if able to do so, that they will have effective sales forces. 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. There can also be no assurance 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, and there can be no assurance that such efforts will be successful. In addition, there can also be no assurance that we will be able to market and sell our product in the United States or overseas.

If we cannot compete successfully for market share against other drug companies, we may not achieve sufficient product revenues and our business will suffer.

The market for our product candidates is characterized by intense competition and rapid technological advances. If our product candidates receive FDA approval, they will compete with a number of existing and future drugs and therapies developed, manufactured and marketed by others. Existing or future competing products may provide greater therapeutic convenience or clinical or other benefits for a specific indication than our products, or may offer comparable performance at a lower cost. If our products fail to capture and maintain market share, we may not achieve sufficient product revenues and our business will suffer.

We will compete against fully integrated pharmaceutical companies and smaller companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors have product candidates that will compete with ours already approved or in development. In addition, many of these competitors, either alone or together with their collaborative partners, operate larger research and development programs and have substantially greater financial resources than we do, as well as significantly greater experience in:

- developing drugs;
- undertaking nonclinical testing and human clinical trials;
- obtaining FDA and other regulatory approvals of drugs;
- formulating and manufacturing drugs; and

- launching, marketing and selling drugs.

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

Many of the organizations competing with us have substantially greater capital resources, larger research and development staffs 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.

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.

See “Business – Intellectual Property and License Agreements.”.

However, with regard to the patents covered by our license agreements and any future patents issued to which we will have rights, 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 patents;
- if and when patents will issue;
- whether or not others will obtain patents claiming aspects similar to those covered by our 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 of our employees, consultants, advisors and contractors to enter into agreements which 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, forced to pay damages, and defend against litigation, which could adversely affect our ability to execute our business plan..

Our business is substantially dependent on the intellectual property on which our product candidates are based. To date, we have not received any threats or claims that we may be infringing on another's patents or other intellectual property rights. If our products, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we 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;
- 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 valuable management resources.

Our ability to generate product revenues will be diminished if our drugs sell for inadequate prices or patients are unable to obtain adequate levels of reimbursement.

Our ability to commercialize our drugs, alone or with collaborators, will depend in part on the extent to which reimbursement will be available from:

- government and health administration authorities;
- private health maintenance organizations and health insurers; and
- other healthcare payers.

Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Healthcare payers, including Medicare, are challenging the prices charged for medical products and services. Government and other healthcare payers increasingly attempt to contain healthcare costs by limiting both coverage and the level of reimbursement for drugs. Even if our product candidates are approved by the FDA, insurance coverage may not be available, and reimbursement levels may be inadequate, to cover our drugs. If government and other healthcare payers do not provide adequate coverage and reimbursement levels for any of our products, once approved, market acceptance of our products could be reduced.

Health care reform and restrictions on reimbursement may limit our returns on potential products.

Because our strategy ultimately depends on the commercial success of our products, we assume, among other things, that end users of our products will be able to pay for them. In the United States and other countries, in most cases, the volume of sales of products like those we are developing depends on the availability of reimbursement from third-party payors, including national health care agencies, private health insurance plans and health maintenance organizations. Third-party payors increasingly challenge the prices charged for medical products and services. Accordingly, if we succeed in bringing products to market, and reimbursement is not available or is insufficient, we could be prevented from successfully commercializing our potential products.

The health care industry in the United States and in Europe is undergoing fundamental changes as a result of political, economic and regulatory influences. Reforms proposed from time to time include mandated basic health care benefits, controls on health care spending, the establishment of governmental controls over the cost of therapies, creation of large medical services and products purchasing groups and fundamental changes to the health care delivery system. We anticipate ongoing review and assessment of health care delivery systems and methods of payment in the United States and other countries. We cannot predict whether any particular reform initiatives will result or, if adopted, what their impact on us will be. However, we expect that adoption of any reform proposed will impair our ability to market products at acceptable prices.

Changes in laws affecting the health care industry could adversely affect our business.

In the U.S., there have been numerous proposals considered at the federal and state levels for comprehensive reforms of health care and its cost, and it is likely that federal and state legislatures and health agencies will continue to focus on health care reform in the future. Congress has considered legislation to reform the U.S. health care system by expanding health insurance coverage, reducing health care costs and making other changes. While health care reform may increase the number of patients who have insurance coverage for our products, it may also include cost containment measures that adversely affect reimbursement for our products. Congress has also considered legislation to change the Medicare reimbursement system for outpatient drugs, increase the amount of rebates that manufacturers pay for coverage of their drugs by Medicaid programs and facilitate the importation of lower-cost prescription drugs that are marketed outside the U.S. Some states are also considering legislation that would control the prices of drugs, and state Medicaid programs are increasingly requesting manufacturers to pay supplemental rebates and requiring prior authorization by the state program for use of any drug for which supplemental rebates are not being paid. Managed care organizations continue to seek price discounts and, in some cases, to impose restrictions on the coverage of particular drugs. Government efforts to reduce Medicaid expenses may lead to increased use of managed care organizations by Medicaid programs. This may result in managed care organizations influencing prescription decisions for a larger segment of the population and a corresponding constraint on prices and reimbursement for our products.

We operate in a highly regulated industry. As a result, governmental actions may adversely affect our business, operations or financial condition, including:

- new laws, regulations or judicial decisions, or new interpretations of existing laws, regulations or decisions, related to health care availability, method of delivery and payment for health care products and services;
- changes in the FDA and foreign regulatory approval processes that may delay or prevent the approval of new products and result in lost market opportunity;
- changes in FDA and foreign regulations that may require additional safety monitoring, labeling changes, restrictions on product distribution or use, or other measures after the introduction of our products to market, which could increase our costs of doing business, adversely affect the future permitted uses of approved products, or otherwise adversely affect the market for our products;
- new laws, regulations and judicial decisions affecting pricing or marketing practices; and
- changes in the tax laws relating to our operations.

The enactment in the U.S. of health care reform, possible legislation which could ease the entry of competing follow-on biologics in the marketplace, new legislation or implementation of existing statutory provisions on importation of lower-cost competing drugs from other jurisdictions, and legislation on comparative effectiveness research are examples of previously enacted and possible future changes in laws that could adversely affect our business. In addition, the Food and Drug Administration Amendments Act of 2007 included new authorization for the FDA to require post-market safety monitoring, along with an expanded clinical trials registry and clinical trials results database, and expanded authority for the FDA to impose civil monetary penalties on companies that fail to meet certain commitments.

We may not successfully manage our growth.

Our success will depend upon the expansion of our operations and the effective management of our growth, which will place a significant strain on our management and on our administrative, operational and financial resources. To manage this growth, we must expand our facilities, augment our operational, financial and management systems and hire and train additional qualified personnel. If we are unable to manage our growth effectively, our business may suffer.

If we are unable to hire additional qualified personnel, our ability to grow our business may be harmed.

We will need to hire additional qualified personnel with expertise in nonclinical testing, clinical research and testing, government regulation, formulation and manufacturing and sales and marketing. We compete for qualified individuals with numerous biopharmaceutical companies, universities and other research institutions. Competition for such individuals is intense, and we cannot be certain that our search for such personnel will be successful. Attracting and retaining qualified personnel will be critical to our success.

If we are not successful in integrating Ariston's product development programs, we may not be able to operate efficiently after the Ariston Merger, which may have a material adverse effect on our results of operations and financial condition.

Achieving the benefits of the Ariston Merger will depend in part on the successful integration of Ariston's drug development programs and personnel in a timely and efficient manner. The integration process requires coordination of different development, regulatory, and manufacturing teams, and involves the integration of systems, applications, policies, procedures, business processes and operations. If we cannot successfully integrate Ariston's programs, we may not realize the expected benefits of the Ariston Merger.

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. We currently carry clinical trial insurance in an amount up to $5,000,000, which may be inadequate to protect against potential product liability claims or may inhibit the commercialization of pharmaceutical products we develop, alone or with corporate collaborators. Although we intend to maintain clinical trial insurance during any clinical trials, this may be inadequate to protect us against any potential claims. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

We are controlled by current officers, directors and principal stockholders.

Our directors, executive officers and principal stockholders beneficially own approximately 20 percent of our outstanding voting stock and, including shares underlying outstanding options and warrants. In addition, Nordic Biotech Venture Fund has the right to acquire up to 85,714,285 shares of our common stock which would result in Nordic owning approximately 43% of our common stock as of March 23, 2010 (although, as described in Note 18 to our financial statements at and for the Years ended December 231, 2009 and 2008, an anti-dilution calculation with respect to this amount has been disputed by Nordic). Through its stock ownership, its right to acquire additional shares, its substantial control over the management of the Hedrin JV (which includes the ability to terminate our management contract with the Hedrin JV), Nordic has the ability to exert substantial influence over the election of our Board of Directors, the outcome of issues submitted to our stockholders, the development of Hedrin and our ability, as a company, to benefit from the successful development of Hedrin. Even without the exercise of its rights to acquire additional shares of our common stock, our directors, officers and principal stockholders, taken as a whole, have the ability to exert substantial influence over the election of our Board of Directors and the outcome of issues submitted to our stockholders.

Risks Related to Our Common Stock

Our stock price is, and we expect it to remain, volatile, which could limit investors' ability to sell stock at a profit.

During the last two fiscal years, our stock price has traded at a low of $0.007 in the fourth quarter of 2008 to a high of $0.23 in the first quarter of 2008. The volatile price of our stock makes it difficult for investors to predict the value of their investment, to sell shares at a profit at any given time, or to plan purchases and sales in advance. A variety of factors may affect the market price of our common stock. These include, but are not limited to:

- The global economic crisis, which affected stock prices of many companies, and particularly many small pharmaceutical companies like ours;
- publicity regarding actual or potential clinical results relating to products under development by our competitors or us;
- delay or failure in initiating, completing or analyzing nonclinical or clinical trials or the unsatisfactory design or results of these trials;
- achievement or rejection of regulatory approvals by our competitors or us;
- announcements of technological innovations or new commercial products by our competitors or us;
- developments concerning proprietary rights, including patents;
- developments concerning our collaborations;
- regulatory developments in the United States and foreign countries;
- economic or other crises and other external factors;
- period-to-period fluctuations in our revenues and other results of operations;
- changes in financial estimates by securities analysts; and
- sales of our common stock.

We will not be able to control many of these factors, and we believe that period-to-period comparisons of our financial results will not necessarily be indicative of our future performance.

In addition, the stock market in general, and the market for biotechnology companies in particular, has experienced extreme price and volume fluctuations that may have been unrelated or disproportionate to the operating performance of individual companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance.

Our Common Stock is not listed on a national exchange and there is a limited market for the Common Stock which may make it more difficult for you to sell your stock.

Our Common Stock is quoted on the OTC Bulletin Board under the symbol "MHAN.OB." There is a limited trading market for our Common Stock which negatively impacts the liquidity of our Common Stock not only in terms of the number of shares that can be bought and sold at a given price, but also through delays in the timing of transactions and reduction in security analysts' and the media's coverage of us. Accordingly, there can be no assurance as to the liquidity of any markets that may develop for the Common Stock, the ability of holders of our Common Stock to sell the Common Stock, or the prices at which holders may be able to sell the Common Stock.

The fact that our common stock is not listed on a national exchange may negatively impact our ability to attract investors and to use our common stock to raise capital to fund our operations.

In order to maintain liquidity in our common stock, we depend upon the continuing availability of a market on which our securities may be traded. We need to raise substantial additional funds in the future to continue our operations and the fact that our common stock is not listed on a national exchange may impact our ability to attract investors and to use our common stock to raise sufficient capital to continue to fund our operations. See the Risk Factor ***"We have no product revenues and will need to raise substantial additional funds in the future. If we are unable to obtain funds necessary to continue our operations, we will be required to delay, scale back or eliminate one or more of our drug development programs"*** above.

If we fail to file periodic reports with the SEC our common stock may be removed from the OTCBB.

Pursuant to the Over-The-Counter Bulletin Board ("OTCBB") rules relating to the timely filing of periodic reports with the SEC, any OTCBB issuer which fails to file a periodic report (Form 10-Q's or 10-K's) by the due date of such report (as extended by the filing of a Form 12b-25), three (3) times during any twenty-four (24) month period is automatically de-listed from the OTCBB. In the event an issuer is de-listed, such issuer would not be eligible to be re-listed on the OTCBB for a period of one-year, during which time any subsequent late filing would reset the one-year period of de-listing. If the Company is late in its filings three times in any twenty-four (24) month period and is de-listed from the OTCBB, the Common Stock would likely be listed for trading only on the "Pink Sheets," which generally provide an even less liquid market than the OTCBB. In such event, investors may find it more difficult to trade the Common Stock or to obtain accurate, current information concerning market prices for the Common Stock.

There is a risk of market fraud.

OTCBB securities are frequent targets of fraud or market manipulation. Not only because of their generally low price, but also because the OTCBB reporting requirements for these securities are less stringent than for listed or Nasdaq traded securities, and no exchange requirements are imposed. Dealers may dominate the market and set prices that are not based on competitive forces. Individuals or groups may create fraudulent markets and control the sudden, sharp increase of price and trading volume and the equally sudden collapse of market prices.

Penny stock regulations may impose certain restrictions on marketability of our securities.

The Securities and Exchange Commission has adopted Rule 15g-9 which establishes the definition of a "penny stock," for the purposes relevant to us, as any equity security that has a market price of less than $5.00 per share or with an exercise price of less than $5.00 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, the rules require:

- that a broker or dealer approve a person's account for transactions in penny stocks; and
- the broker or dealer receives from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased.

In order to approve a person's account for transactions in penny stocks, the broker or dealer must:

- obtain financial information and investment experience objectives of the person; and
- make a reasonable determination that the transactions in penny stocks are suitable for that person and the person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks.

The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prescribed by the Commission relating to the penny stock market, which, in highlight form:

- sets forth the basis on which the broker or dealer made the suitability determination; and
- that the broker or dealer received a signed, written agreement from the investor prior to the transaction.

Generally, brokers may be less willing to execute transactions in securities subject to the "penny stock" rules. This may make it more difficult for investors to dispose of our Common Stock and cause a decline in the market value of our stock.

Disclosure also must be made about the risks of investing in penny stocks in both public offerings and in secondary trading and about the commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks.

We have not paid dividends in the past and do not expect to pay dividends in the future, and any return on investment may be limited to the value of your stock.

We have never paid dividends on our Common Stock and do not anticipate paying any dividends for the foreseeable future. You should not rely on an investment in our stock if you require dividend income. Further, you will only realize income on an investment in our stock in the event you sell or otherwise dispose of your shares at a price higher than the price you paid for your shares. Such a gain would result only from an increase in the market price of our Common Stock, which is uncertain and unpredictable.

If we are unable to obtain future capital on acceptable terms, this will negatively affect our business operations and current investors.

We expect that in the future we will seek additional capital through public or private financings. Additional financing may not be available on acceptable terms, or at all. If additional capital is raised through the sale of equity, or securities convertible into equity, further dilution to then existing stockholders will result. In addition, certain warrants held by certain of our investors and the Nordic Put contain full-ratchet anti-dilution protection provisions which would result in significant dilution to existing stockholders in the event we are required to raise capital at an effective price per share below $0.07 per common share. If additional capital is raised through the incurrence of debt, our business could be affected by the amount of leverage incurred. For instance, such borrowings could subject us to covenants restricting our business activities, paying interest would divert funds that would otherwise be available to support commercialization and other important activities, and holders of debt instruments would have rights and privileges senior to those of equity investors. If we are unable to obtain adequate financing on a timely basis, we may be required to delay, reduce the scope of or eliminate some of our planned activities, any of which could have a material adverse effect on the business.

ITEM 2. PROPERTIES

Our executive offices are located at 48 Wall Street, New York, New York 10005. We currently occupy this space pursuant to a written lease that expires on September 30, 2010 under which we pay rent of approximately $4,000 per month.

We believe that our existing facilities are adequate to meet our current requirements. We do not own any real property.

ITEM 3. LEGAL PROCEEDINGS

None.

ITEM 4. RESERVED

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market for Common Stock

Our common stock traded on the American Stock Exchange "AMEX" under the symbol "MHA" during the period from January 1, 2008 to March 26, 2008. On March 26, 2008 our common stock was voluntarily delisted from the AMEX and began trading and has continued to trade on the Over the Counter Bulletin Board ("OCTBB") under the symbol "MHAN". The following table lists the high and low price for our common stock as quoted, in U.S. dollars, on the American Stock Exchange or the Over the Counter Bulletin Board for the periods indicated:

	Price Range			
	2009		2008	
Quarter Ended	High	Low	High	Low
March 31	$ 0.060	$ 0.009	$ 0.230	$ 0.110
June 30	0.120	0.021	0.180	0.100
September 30	0.100	0.070	0.200	0.100
December 31	0.090	0.060	0.090	0.007

Stock Chart

Comparison to NASDAQ Biotechnology Index

Record Holders

The number of holders of record of our common stock as of March 22, 2010 was 457.

Dividends

We have not paid or declared any dividends on our common stock and we do not anticipate paying dividends on our common stock in the foreseeable future, but intend instead to retain earnings, if any, for use in our business operations. The payment of dividends in the future, if any, will be at the sole discretion of our board of directors and will depend upon our debt and equity structure, earnings and financial condition, need for capital in connection with possible future acquisitions and other factors, including economic conditions, regulatory restrictions and tax considerations. We cannot guarantee that we will pay dividends or, if we pay dividends, the amount or frequency of these dividends.

Stock Repurchases

We did not make any repurchases of our common stock during 2009.

Securities authorized for issuance under equity compensation plans

Equity Compensation Plan Information

Plan Category	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 remaing available for future issuance under equity compenstaion plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	7,459,936	$ 0.718	4,049,528
Equity compensation plans not approved by security holders	-		-
Total	7,459,936	$ 0.718	4,049,528

Recent Sales of Unregistered Securities

In connection with the Registrant's merger of its wholly-owned subsidiary Tarpan Acquisition Corp., with Tarpan Therapeutics, Inc. ("Tarpan"), effective as of April 1, 2005, it issued an aggregate of 10,731,052 shares of its common stock to the former stockholders of Tarpan in exchange for their shares of Tarpan common stock. The Registrant relied on the exemption from federal registration under Section 4(2) of the Securities Act, based on its belief that the issuance of such securities did not involve a public offering, as there were fewer than 35 "non-accredited" investors, all of whom, either alone or through a purchaser representative, had such knowledge and experience in financial and business matters so that each was capable of evaluating the risks of the investment.

In August 2005, the Registrant sold in a private placement offering to accredited investors units of its securities consisting of shares of common stock and warrants to purchase additional shares of common stock. The private placement was completed in two separate closings held on August 26, 2005 and August 30, 2005. In the August 26 closing, the Registrant sold a total of 10,763,926 shares of common stock and five-year warrants to purchase 2,152,758 shares for total gross proceeds of approximately $11.95 million. The warrants issued at the August 26 closing are exercisable at a price of $1.44 per share, which represented approximately 110% of the average closing price of the Registrant's common stock during the five trading days preceding such closing date. On August 30, 2005, the Registrant sold an additional 1,108,709 shares of common stock and five-year warrants to purchase 221,741 shares of common stock, which resulted in gross proceeds of approximately $1.28 million. The warrants issued in connection with the August 30 closing are exercisable at a price of $1.49 per share, which represented approximately 110% of the average closing price of the Company's common stock during the five trading days preceding such closing date. The total gross proceeds resulting from this offering was approximately $13.22 million, before deducting selling commissions and expenses. The Registrant paid total cash commissions of approximately $925,000 to selling agents engaged in connection with the offering and issued 5-year warrants to purchase an aggregate of 593,196 shares of common stock, of which warrants to purchase 538,196 shares are exercisable at a price of $1.44 per share and the remaining are exercisable at a price of $1.49 per share. In connection with this offering, the Registrant relied on the exemption from federal registration under Section 4(2) of the Securities Act and/or Rule 506 promulgated thereunder, based on its belief that the offer and sale of the shares and warrants did not involve a public offering as each investor was "accredited" and no general solicitation was involved in the offering.

On March 30, 2007, the Registrant entered into a series of subscription agreements with various institutional and other accredited investors for the issuance and sale in a private placement of an aggregate of 10,185,502 shares of the Registrant's common stock for total gross proceeds of approximately $8.56 million. Of the total amount of shares issued, 10,129,947 were sold at a per share price of $0.84, and an additional 55,555 shares were sold to an entity affiliated with Neil Herskowitz, a director of Manhattan, at a per share price of $0.90, the closing sale price of the Registrant's common stock on March 29, 2007. Pursuant to the subscription agreements, the Registrant also issued to the investors 5-year warrants to purchase an aggregate of 3,564,897 shares of the Registrant's common stock at an exercise price of $1.00 per share. The warrants are exercisable during the period commencing September 30, 2007 and ending March 30, 2012. Pursuant to the subscription agreements, the Registrant agreed to file a registration statement with the Securities and Exchange Commission on or before May 14, 2007 covering the resale of the shares issued in the private placement, including the shares issuable upon exercise of the investor warrants. The Registrant engaged Paramount BioCapital, Inc., as its placement agent in connection with the private placement. In consideration for its services, the Registrant paid aggregate cash commissions of approximately $600,000 and issued to Paramount a 5-year warrant to purchase an aggregate of 509,275 shares at an exercise price of $1.00 per share. The sale of the shares and warrants was not registered under the Securities Act of 1933. Rather, the offer and sale of such securities was made in reliance on the exemption from registration requirements provided by Section 4 (2) of the Securities Act and Regulation D promulgated thereunder. Each of the investors was "accredited" (as defined under Regulation D) and no general solicitation was used in connection with the offer and sale of such securities.

In April 2007, in partial consideration for entering into a license agreement, the Registrant issued to Thornton & Ross Ltd., the licensor, a total of 125,000 shares of the Registrant's common stock in accordance with the terms thereof. The issuance of such common stock was considered to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act, or Regulation D promulgated thereunder, as a transaction by an issuer not involving a public offering. The recipient of such common stock represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates issued in this transaction. All recipients either received adequate information about us or had access to such information.

In June 2007, in consideration for entering into a license agreement, the Registrant issued to each of Thornton & Ross, Ltd. and Kerris, S.A., each a licensor thereunder, 75,000 shares of the Registrant's common stock in accordance with the terms thereof. The issuances of such common stock were considered to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act, or Regulation D promulgated thereunder, as transactions by an issuer not involving a public offering. The recipients of such common stock represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates issued in these transactions. All recipients either received adequate information about the Registrant or had access to such information.

In January 2008, the Registrant and Nordic Biotech Venture Fund II K/S ("Nordic"), entered into a joint venture agreement the Registrant, as amended on February 18, 2008 and June 9, 2008 (the "Joint Venture Agreement"), pursuant to which in February 2008, (i) Nordic contributed cash in the amount of $2.5 million to H Pharmaceuticals K/S (formerly Hedrin Pharmaceuticals K/S), a newly formed Danish limited partnership(the "Hedrin JV") in exchange for 50% of the equity interests in the Hedrin JV, and (ii) the Registrant contributed certain assets to North American rights (under license) to our Hedrin product to the Hedrin JV in exchange for $2.0 million in cash and 50% of the equity interests in the Hedrin JV. On or around June 30, 2008, in accordance with the terms of the Joint Venture Agreement, Nordic contributed an additional $1.25 million in cash to the Hedrin JV, $1.0 million of which was distributed to us and equity in the Hedrin JV was distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%. Pursuant to the Joint Venture Agreement, upon the classification by the U.S. Food and Drug Administration, or the FDA, of Hedrin as a Class II or Class III medical device, Nordic will be required to contribute to the Hedrin JV an additional $1.25 million in cash, $0.5 million of which will be distributed to us and equity in the Hedrin JV will be distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%. Upon classification by the FDA of Hedrin as a Class II or Class III medical device, the Hedrin JV will have received a total of $1.5 million cash to be applied toward the development and commercialization of Hedrin in North America. If classification of Hedrin by the FDA as a Class II or Class III medical device is not received by June 30, 2009, then Nordic will not be obligated to make the final payment of $1.25 million and Nordic will receive an additional 20% ownership of the joint venture and enhanced control over the joint venture's operations and other important decision-making. Pursuant to the terms of the Joint Venture Agreement, Nordic has the right to nominate one person for election or appointment to our board of directors.

Pursuant to the Joint Venture Agreement, Nordic has the right to put all or a portion of its interest in the Hedrin JV in exchange for such number of shares of common stock equal to the amount of Nordic's investment in the Hedrin JV divided by $0.14, as adjusted from time to time for stock splits and other specified events, multiplied by a conversion factor, which is (i) 1.00 for so long as Nordic's distributions from the Hedrin JV are less than the amount of its investment, (ii) 1.25 for so long as Nordic's distributions from the Hedrin JV are less than two times the amount of its investment but greater than or equal to the amount of its investment amount, (iii) 1.50 for so long as Nordic's distributions from the Hedrin JV are less than three times the amount of its investment but greater than or equal to two times the amount of its investment amount, (iv) 2.00 for so long as Nordic's distributions from the Hedrin JV are less than four times the amount of its investment but greater than or equal to three times the amount of its investment amount and (v) 3.00 for so long as Nordic's distributions from Hedrin JV are greater than or equal to four times the amount of its investment. The put right expires upon the earlier to occur of (i) February 25, 2018 and (ii) 30 days after the date when Nordic's distributions from the Hedrin JV exceed five times the amount Nordic has invested in the Hedrin JV (or 10 days after such date if the Registrant has provided Nordic notice thereof). Pursuant to the Joint Venture Agreement, the Registrant has the right to call all or a portion of Nordic's equity interest in the Hedrin JV in exchange for such number of shares of common stock equal to the portion of Nordic's investment in the Hedrin JV that the Registrant calls by the dollar amount of Nordic's investment as of such date in the Hedrin JV, divided by $0.14, as adjusted from time to time for stock splits and other specified events. The call right is only exercisable by the Registrant if the price of common stock has closed at or above $1.40 per share for 30 consecutive trading days. During the first 30 consecutive trading days in which the common stock closes at or above $1.40 per share, the Registrant may exercise up to 25% of the call right. During the second 30 consecutive trading days in which the common stock closes at or above $1.40 per share, the Registrant may exercise up to 50% of the call right on a cumulative basis. During the third consecutive 30 trading days in which the common stock closes at or above $1.40 per share, the Registrant may exercise up to 75% of the call right on a cumulative basis. During the fourth consecutive 30 days in which the common stock closes at or above $1.40 per share, the Registrant may exercise up to 100% of the call right on a cumulative basis. Nordic may refuse the call, either by paying $1.5 million multiplied by the percentage of Nordic's investment being called or forfeiting an equivalent portion of the put right, calculated on a pro rata basis for the percentage of the Nordic equity interest called by us. The call right expires on February 25, 2013.

In connection with the Joint Venture Agreement, on February 25, 2008, Nordic paid the Registrant a non-refundable fee of $150,000 in exchange for the right to receive a warrant to purchase up to 7,142,857 shares of common stock at $0.14 per share, as adjusted from time to time for stock splits and other specified events, if Nordic did not exercise all or part of its put right on or before April 30, 3008. As of April 30, 2008, Nordic had not exercised all or any portion of its put right and the Registrant issued the warrant to Nordic.

The offering and sale of the securities under the Joint Venture Agreement were considered to be exempt from registration under the Securities Act, by virtue of Section 4(2) thereof and the provisions of Regulation D promulgated thereunder. Nordic has represented to the Registrant that it is an "accredited investor," as that term is defined in Rule 501(a) of Regulation D under the Securities Act.

On September 11, 2008, the Registrant entered into a series of 10% secured promissory notes with certain of its directors and officers and an employee of the Registrant (the “Note Holders”) for aggregate of $70,000. Principal and interest on the notes shall be paid in cash on March 10, 2009 unless paid earlier by the Registrant. In connection with the issuance of the notes, the Registrant also issued to the Note Holders 5-year warrants to purchase an aggregate of 140,000 shares of the Registrant's common stock at an exercise price of $0.20 per share. The Registrant granted to the Note Holders a continuing security interest in certain specific refunds, deposits and repayments due to the Registrant and expected to be repaid to the Registrant in the next several months. The issuance of such securities was considered to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act, or Regulation D promulgated thereunder, as a transaction by an issuer not involving a public offering. The recipient of such securities represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the warrant certificates issued in this transaction. All recipients either received adequate information about us or had access to such information.

On February 3, 2009, the Registrant completed a private placement (the "2009 Private Placement") of 345 units, with each unit consisting of a 12% senior secured note promissory note in the principal amount of $5,000 and a warrant to purchase up to 166,667 shares of common stock at an exercise price of $.09 per share which expires on December 31, 2013, for aggregate gross proceeds of $1,780,500. The private placement was completed in three closings which occurred on November 19, 2008 with respect to 207 units, December 23, 2008 with respect to 56 units and February 3, 2009 with respect to 82 units.

On November 19, 2008, the Registrant completed the sale of 207 units in the first closing of the 2009 Private placement. The Registrant issued a warrant to purchase 5,175,010 shares of common stock at an exercise price of $.09 per share to the placement agent as partial compensation for its services.

On December 23, 2008, the Registrant completed a second closing of the 2009 Private Placement under the terms of the Securities Purchase Agreement. At the second closing, the Registrant sold an additional 56 units to investors. In connection with the second closing, the Registrant issued to the placement agent a warrant to purchase 1,400,003 shares of common stock at an exercise price of $.09 per share as additional compensation for its services.

On February 3, 2009, the Registrant completed a third closing of the 2009 Private Placement under the terms of the Securities Purchase Agreement. At the third closing, the Registrant sold an additional 82 units to investors. In connection with the third closing, the Registrant issued to the placement agent a warrant to purchase 2,050,004 shares of common stock at an exercise price of $.09 per share as additional compensation for its services.

All of the investors represented in the 2009 Private Placement represented that they were “accredited investors,” as that term is defined in Rule 501(a) of Regulation D under the Securities Act, and the sale of the units was made in reliance on exemptions provided by Regulation D and Section 4(2) of the Securities Act of 1933, as amended.

On March 2, 2010, the Company raised aggregate gross proceeds of approximately $2,547,500 pursuant to a private placement of its securities. The Company entered into subscription agreements (the "Subscription Agreements") with seventy-seven accredited investors (the "Investors") pursuant to which the Company sold an aggregate of 101.9 Units (as defined herein) for a purchase price of $25,000 per Unit. Pursuant to the Subscription Agreements, the Company issued to each Investor units (the "Units") consisting of (i) 357,143 shares of common stock, $0.001 par value per share (the “Common Stock” or “Shares”) of the Company and (ii) 535,714 warrants (each a “Warrant” and collectively the “Warrants”), each of which will entitle the holder to purchase one additional share of Common Stock for a period of five years (each a “Warrant Share” and collectively the “Warrant Shares”) at an exercise price of $0.08 per share.

All of the Investors represented that they were “accredited investors,” as that term is defined in Rule 501(a) of Regulation D under the Securities Act, and the sale of the Units was made in reliance on exemptions provided by Regulation D and Section 4(2) of the Securities Act of 1933, as amended.

In connection with the closing of the private placement, the Company, the placement agent acting in connection with the private placement (the “Placement Agent”) and the Investors entered into a Registration Rights Agreement, dated as of March 2, 2010, and the Company agreed to file a registration statement to register the resale of the Shares, within 60 days of the final closing date and to cause the registration statement to be declared effective within 150 days (or 180 days upon review by the SEC).

The Company received net proceeds of approximately $2,158,000 after payment of an aggregate of $305,700 of commissions and expense allowance to the Placement Agent, and approximately $83,000 of other offering and related costs in connection with the private placement. In addition, the Company issued a warrant to purchase 3,639,289 shares of Common Stock at an exercise price of $0.08 per share to the Placement Agent as additional compensation for its services.

The Company did not use any form of advertising or general solicitation in connection with the sale of the Units. The Shares, the Warrants and the Warrant Shares are non-transferable in the absence of an effective registration statement under the Act, or an available exemption therefrom, and all certificates are imprinted with a restrictive legend to that effect.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

Overview

We were incorporated in Delaware in 1993 under the name "Atlantic Pharmaceuticals, Inc." and, in March 2000, we changed our name to "Atlantic Technology Ventures, Inc." In 2003, we completed a "reverse acquisition" of privately held "Manhattan Research Development, Inc". In connection with this transaction, we also changed our name to "Manhattan Pharmaceuticals, Inc." From an accounting perspective, the accounting acquirer is considered to be Manhattan Research Development, Inc. and accordingly, the historical financial statements are those of Manhattan Research Development, Inc.

During 2005 we merged with Tarpan Therapeutics, Inc. ("Tarpan"). Tarpan was a privately held New York based biopharmaceutical company developing dermatological therapeutics. Through the merger, we acquired Tarpan's primary product candidate, Topical PTH (1-34) for the treatment of psoriasis. In consideration for their shares of Tarpan's capital stock, the stockholders of Tarpan received an aggregate of approximately 10,731,000 shares of our common stock, representing approximately 20% of our then outstanding common shares. This transaction was accounted for as a purchase of Tarpan by the Company.

We are a specialty healthcare product company focused on developing and commercializing pharmaceutical treatments for underserved patient populations. We aim to acquire rights to these technologies by licensing or otherwise acquiring an ownership interest, funding their research and development and eventually either bringing the technologies to market or out-licensing. In the short term we are focusing our efforts on the commercialization of the two product candidates we currently have in development: Hedrin ^{TM}, through the Hedrin JV, a novel, non-insecticide treatment of pediculitis (head lice) and a topical product for the treatment of psoriasis. Longer term we intend to acquire and commercialize low risk, quick to market products, specifically products that could be marketed over-the-counter ("OTC"), treat everyday maladies, are simple to manufacture, and/or could be classified as medical devices by the FDA.

You should read the following discussion of our results of operations and financial condition in conjunction with the financial statements and notes thereto appearing elsewhere in this Form 10-K. This discussion includes "forward-looking" statements that reflect our current views with respect to future events and financial performance. We use words such as we "expect," "anticipate," "believe," and "intend" and similar expressions to identify forward-looking statements. Investors should be aware that actual results may differ materially from our expressed expectations because of risks and uncertainties inherent in future events, particularly those risks identified under the heading "Risk Factors" following Item 1 in this Annual Report, and should not unduly rely on these forward looking statements. All share and per share information in this discussion has been adjusted for the 1-for-5 combination of our common stock effected on September 25, 2003.

Results Of Operations

2009 versus 2008

During each of the years ended December 31, 2009 and 2008, we had no revenues, and are considered a development stage company. We do not expect to have revenues relating to our products prior to December 31, 2010.

	Years ended December 31,			
	2009	2008	Increase (decrease)	% Increase (decrease)
Costs and expenses:				
Research and development:				
Share-based compensation	$ 2,000	$ 122,000	$ (120,000)	-98.36%
Other research and development expenses	38,000	1,681,000	(1,643,000)	-97.74%
Total research and development expenses	**40,000**	**1,803,000**	**(1,763,000)**	**-97.78%**
General and administrative:				
Share-based compensation	351,000	342,000	9,000	2.63%
Other general and administrative expenses	1,380,000	2,268,000	(888,000)	-39.15%
Total general and administrative expenses	**1,731,000**	**2,610,000**	**(879,000)**	**-33.68%**
Other income/(expense):				
Equity in loss of Hedrin JV	(500,000)	(250,000)	(250,000)	100.00%
Change in fair value of derivative	(560,000)	-	(560,000)	N/A
Swiss Pharma settlement	251,000	-	251,000	N/A
Interest and amortization on Notes Payable	(545,000)	(39,000)	(506,000)	1297.44%
Other interest expense	(3,000)	(26,000)	23,000	-88.46%
Interest and other income	335,000	459,000	(124,000)	-27.02%
Total other income/(expense)	**(1,022,000)**	**144,000**	**(1,166,000)**	**-809.72%**
Net loss	**$ 2,793,000**	**$ 4,269,000**	**$ (1,476,000)**	**-34.57%**

For the year ended December 31, 2009 research and development expense was $40,000 as compared to $1,803,000 for the year ended December 31, 2008. This decrease of $1,763,000, or 98%, is primarily due to there being no active product development projects during 2009, as the Hedrin product is being developed by the Hedrin JV and as we have ceased development of all other products due to the lack of funds and other factors.

For the year ended December 31, 2009 general and administrative expense was $1,731,000 as compared to $2,610,000 for the year ended December 31, 2008. This decrease of $879,000, or 34%, is primarily comprised of $493,000 of costs recognized during 2008 related to the Swiss Pharma arbitration award with no costs recognized during 2009, decreases in public company costs of $107,000, in travel and related expenses of $63,000, in consulting and temporary help of $58,000, in rent and related expenses of $51,000, in depreciation expense and loss on abandonment of fixed assets of $38,000, in business development costs of $28,000 and in dues and subscriptions of $18,000, partially offset by an increase in share-based compensation of $9,000.

For the year ended December 31, 2009 other income/(expense), net, was $(1,022,000) as compared to $144,000 for the year ended December 31, 2008. This change of $(1,166,000) , or 810%, is due to the recognition of $(560,000) of change in the fair value of a derivative liability and $251,000 relating to the settlement of the Swiss Pharma matter during 2009 with no corresponding amounts recognized during 2008, of increases in equity in losses of Hedrin JV of $(250,000), in interest and amortization expense related to Notes Payable of $(506,000) and a decrease of $(124,000), in management fee revenue from the Hedrin JV.

Net loss for the year ended December 31, 2009 was $2,793,000 as compared to $4,269,000 for the year ended December 31, 2008. This decrease of $1,476,000, or 35%, is primarily due to a decrease in research and development expenses of $1,763,000, a decrease in general and administrative expense of $879,000 offset by a change in other income/(expense) of $(1,166,000).

Liquidity and Capital Resources

From inception to December 31, 2009, we incurred a deficit during the development stage of $61,933,000 primarily as a result of our net losses, and we expect to continue to incur additional losses through at least December 31, 2010 and for the foreseeable future. These losses have been incurred through a combination of research and development activities related to the various technologies under our control and expenses supporting those activities.

We have financed our operations since inception primarily through equity and debt financings and a joint venture transaction. During the year ended December 31, 2009, we had a net decrease in cash and cash equivalents of $88,000. This decrease resulted largely from net cash used in operating activities of $1,050,000 partially offset by net cash provided by financing activities of $962,000. Total liquid resources as of December 31, 2009 were $18,000 compared to $106,000 at December 31, 2008.

Our current liabilities as of December 31, 2009 were $2,532,000 compared to $1,486,000 at December 31, 2008, an increase of $1,046,000. As of December 31, 2009, we had working capital deficit of $2,268,000 compared to working capital deficit of $612,000 at December 31, 2008.

We received approximately $340,000 in February 2009 from the final closing of the sale of the 12% Secured Notes, approximately $500,000 in February 2009 from a joint venture agreement, approximately $165,000 from the sale of a 12% Note in October 2009 and approximately $27,000 from Ariston Pharmaceuticals, Inc. in exchange for a note in December 2009. In addition, we issued a $250,000 non-interest bearing note in connection with the Swiss Pharma settlement. Our available working capital and capital requirements will depend upon numerous factors, including progress of our research and development programs, our progress in and the cost of ongoing and planned nonclinical and clinical testing, the timing and cost of obtaining regulatory approvals, the cost of filing, prosecuting, defending, and enforcing patent claims and other intellectual property rights, in-licensing activities, competing technological and market developments, changes in our existing collaborative and licensing relationships, the resources that we devote to developing manufacturing and commercializing capabilities, the status of our competitors, our ability to establish collaborative arrangements with other organizations and our need to purchase additional capital equipment.

Our continued operations will depend on whether we are able to raise additional funds through various potential sources, such as equity and debt financing, other collaborative agreements, strategic alliances, and our ability to realize the full potential of our technology in development. Such additional funds may not become available on acceptable terms and there can be no assurance that any additional funding that we do obtain will be sufficient to meet our needs in the long term. Through December 31, 2009, a significant portion of our financing has been through private placements of common stock and warrants. Unless our operations generate significant revenues and cash flows from operating activities, we will continue to fund operations from cash on hand and through the similar sources of capital previously described. We can give no assurances that any additional capital that we are able to obtain will be sufficient to meet our needs. We believe that we will continue to incur net losses and negative cash flows from operating activities for the foreseeable future.

Based on the resources of the Company available at December 31, 2009, and the net proceeds of $2.2 million received in March 2010 from a private placement of common stock and warrants, management believes that we have sufficient capital to fund our operations through 2010, including the operations of Ariston Pharmaceuticals, Inc. which we acquired in March 2010. Management believes that we will need additional equity or debt financing or will need to generate positive cash flow from the Hedrin joint venture, or generate revenues through licensing of our products or entering into strategic alliances to be able to sustain our operations into 2011. Furthermore, we will need additional financing thereafter to complete development and commercialization of its products. There can be no assurances that we can successfully complete development and commercialization of our products.

These matters raise substantial doubt about the Company's ability to continue as a going concern. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We have reported net losses of $2,793,000 and $4,269,000 for the years ended December 31, 2009 and 2008, respectively. The net loss attributable to common shares from date of inception, including preferred stock dividends, August 6, 2001 to December 31, 2009, amounts to $61,933,000. Management believes that we will continue to incur net losses through at least December 31, 2010.

Joint Venture Agreement

We and Nordic Biotech Venture Fund II K/S, or Nordic, entered into a joint venture agreement on January 31, 2008, which was amended on February 18, 2008 and on June 9, 2008. Pursuant to the joint venture agreement, in February 2008, (i) Nordic contributed cash in the amount of $2.5 million to H Pharmaceuticals K/S (formerly Hedrin Pharmaceuticals K/S), a newly formed Danish limited partnership, or the Hedrin JV, in exchange for 50% of the equity interests in the Hedrin JV, and (ii) we contributed certain assets to North American rights (under license) to our Hedrin product to the Hedrin JV in exchange for $2.0 million in cash and 50% of the equity interests in the Hedrin JV. On or around June 30, 2008, in accordance with the terms of the joint venture agreement, Nordic contributed an additional $1.25 million in cash to the Hedrin JV, $1.0 million of which was distributed to us and equity in the Hedrin JV was distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%.

Pursuant to the joint venture agreement, upon the classification by the U.S. Food and Drug Administration, or the FDA, of Hedrin as a Class II or Class III medical device, Nordic was required to contribute to the Hedrin JV an additional $1.25 million in cash, $0.5 million of which was to be distributed to us and equity in the Hedrin JV was to be distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%. The FDA notified the Hedrin JV that Hedrin has been classified as a Class III medical device and in February 2009, Nordic made the $1.25 million investment in the Hedrin JV, the Hedrin JV made the $0.5 million milestone payment to us and equity in the Hedrin JV was distributed to us and Nordic sufficient to maintain our respective ownership interests at 50%.

The Hedrin JV is responsible for the development and commercialization of Hedrin for the North American market and all associated costs including clinical trials, if required, regulatory costs, patent costs, and future milestone payments owed to Thornton & Ross Ltd., or T&R, the licensor of Hedrin. The Hedrin JV has engaged us to provide management services to the Hedrin JV in exchange for a management fee, which for years ended December 31, 2009 and 2008 was approximately $334,000 and $447,000, respectively.

The profits of the Hedrin JV will be shared by us and Nordic in accordance with our respective equity interests in the Hedrin JV, of which we each currently hold 50%, except that Nordic is entitled to receive a minimum return each year from the Hedrin JV equal to 6% on Hedrin sales, as adjusted for any change in Nordic's equity interest in the Hedrin JV, before any distribution is made to us. If the Hedrin JV realizes a profit in excess of the Nordic minimum return in any year, then such excess shall first be distributed to us until our distribution and the Nordic minimum return are in the same ratio as our respective equity interests in the Hedrin JV and then the remainder, if any, is distributed to Nordic and us in the same ratio as our respective equity interests. However, in the event of a liquidation of the Hedrin JV, Nordic's distribution in liquidation must equal the amount Nordic invested in the Hedrin JV ($5 million) plus 10% per year, less the cumulative distributions received by Nordic from the Hedrin JV before any distribution is made to us. If the Hedrin JV's assets in liquidation exceed the Nordic liquidation preference amount, then any excess shall first be distributed to us until our distribution and the Nordic liquidation preference amount are in the same ratio as our respective equity interests in the Hedrin JV and then the remainder, if any, is distributed to Nordic and us in the same ratio as our respective equity interests. Further, in no event shall Nordic's distribution in liquidation be greater than assets available for distribution in liquidation.

The Hedrin JV's Board consists of 4 members, 2 appointed by us and 2 appointed by Nordic. Nordic has appointed one of the directors as chairman of the Board. The chairman has certain tie breaking powers.

Nordic has the right to nominate a person to serve on the Company's Board of Directors. Nordic has nominated a person, however, that person has declined to stand for appointment to the Company's Board of Directors.

Pursuant to the joint venture agreement, Nordic has the right to put all or a portion of its interest in the Hedrin JV in exchange for such number of shares of our common stock equal to the amount of Nordic's investment in the Hedrin JV divided by $0.09, as adjusted for the sale of the Secured 12% Notes in the fourth quarter of 2008, and as further adjusted from time to time for stock splits and other specified events, multiplied by a conversion factor, which is (i) 1.00 for so long as Nordic's distributions from the Hedrin JV are less than the amount of its investment, (ii) 1.25 for so long as Nordic's distributions from the Hedrin JV are less than two times the amount of its investment but greater than or equal to the amount of its investment amount, (iii) 1.50 for so long as Nordic's distributions from the Hedrin JV are less than six times the amount of its investment but greater than or equal to two times the amount of its investment amount, (iv) 2.00 for so long as Nordic's distributions from the Hedrin JV are less than four times the amount of its investment but greater than or equal to six times the amount of its investment amount and (v) 3.00 for so long as Nordic's distributions from Hedrin JV are greater than or equal to four times the amount of its investment. The put right expires upon the earlier to occur of (i) February 25, 2018 and (ii) 30 days after the date when Nordic's distributions from the Hedrin JV exceed five times the amount Nordic has invested in the Hedrin JV (or 10 days after such date if we have provided Nordic notice thereof).

Pursuant to the joint venture agreement, we have the right to call all or a portion of Nordic's equity interest in the Hedrin JV in exchange for such number of shares of our common stock equal to the portion of Nordic's investment in the Hedrin JV that we call by the dollar amount of Nordic's investment as of such date in the Hedrin JV, divided by $0.09, as adjusted for the sale of the Secured 12% Notes in the fourth quarter of 2008, and as further adjusted from time to time for stock splits and other specified events. The call right is only exercisable by us if the price of our common stock has closed at or above $1.40 per share for 30 consecutive trading days. During the first 30 consecutive trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 25% of the call right. During the second 30 consecutive trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 50% of the call right on a cumulative basis. During the third consecutive 30 trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 75% of the call right on a cumulative basis. During the fourth consecutive 30 days in which our common stock closes at or above $1.40 per share, we may exercise up to 100% of the call right on a cumulative basis. Nordic may refuse the call, either by paying $1.5 million multiplied by the percentage of Nordic's investment being called or forfeiting an equivalent portion of the put right, calculated on a pro rata basis for the percentage of the Nordic equity interest called by us. The call right expires on February 25, 2013. For purposes of Nordic's right to put, and our right to call, all or a portion of Nordic's equity interest in the Hedrin JV, the amount of Nordic's investment is currently $5,000,000.

In connection with our joint venture agreement, on February 25, 2008, Nordic paid us a non-refundable fee of $150,000 in exchange for the right to receive a warrant to purchase up to 11,111,111 shares of our common stock at $0.09 per share, as adjusted for the sale of the Secured 12% Notes in the fourth quarter of 2008, and as further adjusted from time to time for stock splits and other specified events, if Nordic did not exercise all or part of its put right on or before April 30, 3008. As of April 30, 2008, Nordic had not exercised all or any portion of its put right and we issued the warrant to Nordic.

We granted Nordic registration rights for the shares to be issued upon exercise of the warrant, the put or the call. We filed an initial registration statement on May 1, 2008. The registration statement was declared effective on October 15, 2008. On June 2, 2009, we filed an additional Registration Statement registering the additional 28,769,841 shares of Common Stock that may be issued to Nordic upon exercise of a put right held by Nordic as a result of Nordic's additional investment of $1,250,000 in Newco pursuant to the terms of the Partnership Agreement and as adjusted pursuant to the anti-dilution provisions of the put right (the "Put Shares") and the additional 3,968,254 shares issuable upon exercise of an outstanding warrant held by Nordic. The Securities and Exchange Commission ("SEC") has informed us that we may not register the Put Shares for resale until Nordic exercises its put right and such shares of Common Stock are outstanding. We believe that we have used commercially reasonable efforts to cause the registration statement to be declared effective and have satisfied our obligations under the registration rights agreement with respect to the registration of the Put Shares. The Company is awaiting input from Nordic as to whether Nordic would like us to continue to pursue registration of the additional 3,968,254 shares issuable upon exercise of an outstanding warrant held by Nordic which were included within the June 2009 registration statement.

We are required to file additional registration statements, if required, within 45 days of the date we first knew that such additional registration statement was required. We are required to use commercially reasonable efforts to cause the additional registration statements to be declared effective by the SEC within 105 calendar days from the filing date (the "Effective Date"). If we fail to file a registration statement on time or if a registration statement is not declared effective by the SEC within 105 days of filing we will be required to pay to Nordic, or its assigns, an amount in cash, as partial liquidated damages, equal to 0.5% per month of the amount invested in the Hedrin JV by Nordic until the registration statement is declared effective by the SEC. In no event shall the aggregate amount payable by us exceed 9% of the amount invested in the Hedrin JV by Nordic.

As per the Limited Partnership Agreement between the Company and Nordic (the "LPA") in the event that a limited partner in the Hedrin JV (a "Limited Partner") determines, in its reasonable good faith discretion, that the Hedrin JV requires additional capital for the proper conduct of its business that Limited Partner shall provide each Limited Partner with a written request for contribution of such Limited Partner's proportionate share, in accordance to the then respective equity ownership in the Hedrin JV, of such requested additional capital amount.

As per the terms of the LPA, if a Limited Partner declines to so contribute, elects to contribute but thereafter fails to do so timely, or elects to contribute and timely does contribute some, but not all of, its proportionate share of the requested additional capital amount, the other Limited Partner shall have the option to contribute the remaining balance of such requested additional capital amount.

As per the terms of the LPA,the General Partner shall determine the fair market value of the shares for purposes of determining how to allocate the number of shares of the Hedrin JV to be issued in consideration for the contribution of capital. If the General Partner is unable to determine the fair market value of the shares, the fair market value for the shares shall be determined in good faith by the contributing Limited Partner if such amount is equal to or greater than the most recent valuation of such Hedrin JV shares.

On December 31, 2009, Nordic Biotech Venture Fund II ("Nordic") delivered a written notice to the Company for a $1,000,000 capital increase to the Hedrin JV. In January 2010, Nordic made its capital contribution to the Hedrin JV of $500,000. The Company did not have sufficient funds to make such a capital contribution within the required time prescribed in the LPA.

The General Partner was unable to determine the fair market value of the shares. The contributing Limited Partner, Nordic, determined in good faith that the fair market value of the shares is equal to the most recent valuation. The most recent valuation was the February 2009 investment of $1,500,000 into the Hedrin JV by Nordic at $5,000 per share. As a result of Nordic's investing an additional $500,000 in the Hedrin JV the ownership percentages of the Hedrin JV have changed from 50% to Nordic and 50% for us to 52.38% to Nordic and 47.62% for us. In the event that Nordic exercises its option to invest the remaining $500,000 of the $1,000,000 capital increase then the ownership percentage shall change to 54.55% for Nordic and 45.45% for us.

Secured 10% Notes Payable

On September 11, 2008, we issued secured 10% promissory notes to certain of our directors and officers and an employee for aggregate principal amount of $70,000. Principal and interest on the notes are payable in cash on March 10, 2009 unless paid earlier by the Company. In connection with the issuance of the notes, we issued to the noteholders 5-year warrants to purchase an aggregate of 140,000 shares of our common stock at an exercise price of $0.20 per share. We granted to the noteholders a continuing security interest in certain specific refunds, deposits and repayments due to us and expected to be repaid to us in the next several months. The secured 10% notes were repaid in February 2009 along with interest thereon.

Secured 12% Notes Payable

On February 3, 2009, we completed a private placement of 345 units, with each unit consisting of Secured 12% Notes in the principal amount of $5,000 and a warrant to purchase up to 166,667 shares of our common stock at an exercise price of $.09 per share which expires on December 31, 2013, for aggregate gross proceeds of $1,725,000. The private placement was completed in three closings which occurred on November 19, 2008 with respect to 207 units, December 23, 2008 with respect to 56 units and February 3, 2009 with respect to 82 units.

To secure our obligations under the notes, we entered into a security agreement and a default agreement with the investors. The security agreement provides that the notes will be secured by a pledge of our assets other than (i) our interest in the Hedrin joint venture, including, without limitation, our interest in H Pharmaceuticals K/S and H Pharmaceuticals General Partner ApS, (ii) our rent deposit for our former office space, (iii) our refund of a prepayment and (iv) our tax refund for the 2007 fiscal year from the State of New York and City of New York. In addition, to provide additional security for our obligations under the notes, we entered into a default agreement, which provides that upon an event of default under the notes, we shall, at the request of the holders of the notes, use our reasonable commercial efforts to either (i) sell a part or all of our interests in the Hedrin joint venture or (ii) transfer all or part of our interest in the Hedrin JV to the holders of the notes, as necessary, in order to fulfill our obligations under the notes, to the extent required and to the extent permitted by the applicable Hedrin joint venture agreements.

In connection with the private placement, we, the placement agent and the investors entered into a registration rights agreement. Pursuant to the registration rights agreement, we agreed to file a registration statement to register the resale of the shares of our common stock issuable upon exercise of the warrants issued to the investors in the private placement, within 20 days of the final closing date and to cause the registration statement to be declared effective within 90 days (or 120 days upon full review by the SEC). During the year ended December 31, 2009, we filed the registration statement, received a comment letter from the SEC, responded to the SEC comment letter and re-filed the registration statement. The registration statement was declared effective by the SEC on April 17, 2009.

SwissPharma Contract LLC Settlement

On October 27, 2009, we entered into a Settlement Agreement and Mutual Release with Swiss Pharma Contract LTD ("Swiss Pharma") pursuant to which we agreed to pay Swiss Pharma $200,000 and issue Swiss Pharma an interest free promissory note in the principal amount of $250,000 in full satisfaction of the September 5, 2008 arbitration award. The amount of the Arbitration award was $683,027 at September 30, 2009 and is included as a component of accrued expenses in the balance sheet as of September 30, 2009.

In conjunction with the Settlement Agreement and Mutual Release with Swiss Pharma described above, on October 28, 2009, we entered into a Subscription Agreement (the "Subscription Agreement") pursuant to which we sold a 12% Original Issue Discount Senior Subordinated Convertible Debenture with a stated value of $400,000 (the "Convertible 12% Note") and a warrant (the "Warrant" and, together with the Convertible 12% Note, (the "Securities") to purchase 2,222,222 shares of our common stock, par value $.001 per share ("Common Stock") for a purchase price of $200,000. The Convertible 12% Note is convertible into shares of Common Stock at an initial conversion price of $0.09 per share, subject to adjustment or, in the event that we issues new securities in connection with a financing, the Convertible 12% Note may be converted into such new securities at a conversion price equal to the purchase price paid by the purchasers of such new securities. We may also, in our sole discretion, elect to pay interest due under the Debenture quarterly in shares of our common stock provided such shares are subject to an effective registration statement. The Convertible 12% Note is subordinated to our outstanding Secured 12% Notes in the principal amount of $1,725,000. The Warrant is exercisable at an exercise price of $0.11 per share, subject to adjustment, prior to October 28, 2014.

In connection with the issuance of the Securities, we issued warrants to purchase an aggregate of 222,222 shares of Common Stock at an exercise price of $0.11 per share to the placement agent and certain of its designees.

Acquisition of Ariston Pharmaceuticals, Inc.

On March 8, 2010, we entered into an Agreement and Plan of Merger (the "Merger Agreement") by and among the Company, Ariston Pharmaceuticals, Inc., a Delaware corporation ("Ariston") and Ariston Merger Corp., a Delaware corporation and wholly-owned subsidiary of the Company (the "Merger Sub"). Pursuant to the terms and conditions set forth in the Merger Agreement, on March 8, 2010, the Merger Sub merged with and into Ariston (the "Merger"), with Ariston being the surviving corporation of the Merger. As a result of the Merger, Ariston became our wholly-owned subsidiary.

Under the terms of the Merger Agreement, the consideration payable by us to the stockholders and note holders of Ariston consists of the issuance of 7,062,423 shares of our common stock at closing (as defined in the Merger Agreement) plus the right to receive up to an additional 24,718,481 shares of our common stock (the "Milestone Shares") upon the achievement of certain product-related milestones described below. In addition, we have reserved 38,630,723 shares of our Common Stock for possible future issuance in connection with the conversion of $15.45 million of outstanding Ariston convertible promissory notes. The note holders will not have any recourse to us for repayment of the notes (their sole recourse being to Ariston), but the note holders will have the right to convert the notes into shares of our common stock at the rate of $0.40 per share. Further, we have reserved 5,000,000 shares of our common stock for possible future issuance in connection with the conversion of $1.0 million of outstanding Ariston convertible promissory note issued in satisfaction of a trade payable. The note holder will not have any recourse to us for repayment of the note (their sole recourse being to Ariston), but the note holder will have the right to convert the note into shares of the our common stock at the rate of $0.20 per share.

Upon the achievement of the milestones described below, we would be obligated to issue portions of the Milestone Shares to the former Ariston stockholders and noteholders:

- Upon the affirmative decision of our Board of Directors, provided that such decision is made prior to March 8, 2011, to further develop the AST-914 metabolite product candidate, either internally or through a corporate partnership, we would issue 8,828,029 of the Milestone Shares.
- Upon the acceptance by the FDA of the Company's filing of the first New Drug Application for the AST-726 product candidate, we would issue 7,062,423 of the Milestone Shares.
- Upon the Company receiving FDA approval to market the AST-726 product candidate in the United States of America, we would issue 8,828,029 of the Milestone Shares.

Certain members of our Board of Directors and principal stockholders of the Company owned Ariston securities. Timothy McInerney, a director of Manhattan, owned 16,668 shares of Ariston common stock which represented less than 1% of Ariston's outstanding common stock as of the closing of the Merger. Neil Herskowitz, a director of Manhattan, indirectly owned convertible promissory notes of Ariston with interest and principal in the amount of $192,739. Michael Weiser, a director of Manhattan, owned 117,342 shares of Ariston common stock, which represented approximately 2.1% of Ariston's outstanding common stock as of the closing of the Merger. Lindsay Rosenwald, a more than 5% beneficial owner of Manhattan common stock, in his individual capacity and indirectly through trusts and companies he controls owned 497,911 shares of Ariston common stock, which represented approximately 8.9% of Ariston's outstanding common stock as of the closing of the Merger and indirectly owned convertible promissory notes of Ariston in the amount of $141,438.

The Company merged with Ariston principally to add new products to our portfolio. Ariston, prior to the Merger, was a private, clinical stage specialty biopharmaceutical company based in Shrewsbury, Massachusetts that in-licenses, develops and plans to market novel therapeutics for the treatment of serious disorders of the central and peripheral nervous systems.

AST-726

Ariston is developing a nasally-delivered Vitamin B_{12} remediation treatment which it calls AST-726. AST-726 has demonstrated pharmacokinetic equivalence to a marketed intramuscular injection product for Vitamin B_{12} remediation. Ariston believes that AST-726 may enable both a single, once-monthly treatment for maintenance of normal Vitamin B_{12} levels in deficient patients, and more frequent administration to restore normal levels in newly diagnosed B_{12} deficiency. Further, Ariston believes that AST-726 could offer a convenient, painless, safe and cost-effective treatment for Vitamin B_{12} deficiency, without the need for intramuscular injections.

Ariston has positioned AST-726 to currently require only a single, relatively small Phase III clinical trial prior to submission of a 505(b)(2) new drug application ("NDA") to the FDA.

Ariston has developed a CMC/manufacturing process for AST-726 that Ariston believes provides a commercially viable stability profile. Ariston has two issued patents in the United States with respect to AST-726, one of which relates to its application in Vitamin B_{12} remediation.

More than 9 million people in the US are deficient in Vitamin B_{12}, indicating substantial market potential for a facile, convenient, safe and effective treatment that can replace the need for painful and frequent intramuscular injections or other less than fully effective delivery forms. Ariston believes that substantial market opportunity also exists internationally.

Vitamin B_{12} Deficiency-Background of the Disease

Untreated Vitamin B_{12} deficiency can result in serious clinical problems including hematological disorders, such as life-threatening anemias, and a range of central and peripheral neurological abnormalities such as fatigue, confusion, cognition impairment, dementia, depression, peripheral neuropathies and gait disturbances. Neuronal damage may involve peripheral nerves, the spinal cord and the brain and if the condition is left untreated may become permanent. Furthermore, clinically asymptomatic patients with low normal or below normal Vitamin B_{12} levels may have changes in blood chemistries, including elevated levels of methylmalonic acid or homocysteine, known risk factors for other medical conditions associated with an increased risk of circulatory problems, blood clots and cardiovascular disease.

The primary diagnosis of Vitamin B_{12} deficiency is made when measurement of its blood concentration falls below the expected normal range of 200 to 900 picograms/ml. Vitamin B_{12} deficiency is most often caused by pathological conditions that limit the body's ability to absorb the vitamin. Such disorders include pernicious anemia, atrophic gastritis, problems caused by gastric surgical procedures to treat stomach cancer and obesity, Crohn's disease and simple age-related changes. Some studies show the inability to properly absorb Vitamin B_{12} as a side effect from chronic use of certain widely prescribed antacid medications such as Prilosec ® and diabetes treatments such as Glucophage ®.

Approximately 15% of the elderly and up to 40% of nursing home residents in the U.S. have Vitamin B_{12} deficiency. A study of over 11,000 U.S. civilians ages four and older found a 3% prevalence of Vitamin B_{12} deficiency in the general population using the 200 picograms/ml deficiency standard, indicating that approximately 9 million people in the U.S. are in need of B_{12} replacement therapy. Some experts advocate a higher deficiency standard of 300-350 picograms/ml on the basis that levels below this coincide with elevated methylmalonic acid and homocysteine, risk factors for cardiovascular disease as found in the Framingham Heart Study. On this basis the prevalence of Vitamin B_{12} deficiency increases substantially.

Current Treatments for Vitamin B_{12} Deficiency

Once Vitamin B_{12} deficiency is diagnosed by a simple blood test, the goal of treatment is generally to:

- restore circulating blood levels to normal as rapidly as possible;
- replenish and normalize the substantial stores of the vitamin in the body; and
- institute a lifelong therapeutic regimen that will maintain normal levels of the vitamin.

Ariston believes that parenteral (intramuscular injection) treatment is often considered the treatment of choice for Vitamin B_{12} deficiency. Cyanocobalamin is predominantly used for this purpose in the United States, but hydroxocobalamin, the active ingredient in AST-726, is also available for pediatrics and for adults for whom injection of cyanocobalamin is poorly tolerated. Hydroxocobalamin injection is the predominant treatment for Vitamin B_{12} deficiency in Europe.

In the United States, intramuscular injections are generally given by a physician or nurse, necessitating an office/medical center visit by the patient or a visiting nurse home call for each treatment. Following a diagnosis of B_{12} deficiency, injections are required quite frequently in order to restore normal vitamin levels. Once normalization is achieved, the frequency can be reduced to once or twice per month. While the treatment is usually highly effective, the inconvenience and cost of frequent office visits and the pain and side-effects associated with intramuscular injections are problematic for many patients.

Intranasal treatment with Vitamin B_{12} deficiency seeks to alleviate these problems, but the two intranasal products currently available in the United States have to be administered on a daily or weekly basis and are not usually recommended for the treatment of newly diagnosed patients. Both products are based on cyanocobalamin.

Oral or sublingual administration of high doses of Vitamin B_{12} can restore deficient patients to normal in certain cases. Such high dose supplements are generally available in pharmacies and nutrition/health food stores. Adequate results can almost certainly be obtained when nutritional insufficiency (e.g., strict vegan diet) is the primary cause of the problem. However, the normal gastrointestinal tract has a very limited capability to absorb Vitamin B_{12} and if this is compromised, as is the case in many deficient patients, oral or sublingual supplementation may not be ideal for rapidly restoring circulating levels and storage depots of the vitamin to normal. In such cases of pathological Vitamin B_{12} deficiency, intramuscular injection still often remains the current treatment of choice.

An unapproved Vitamin B_{12} patch is available in the United States, but Ariston believes that its effectiveness in moderate to severe Vitamin B_{12} deficient patients is substantially untested.

Potential Advantages of Ariston's AST-726 Treatment

Ariston believes that Ariston's AST-726 treatment has the potential to directly substitute for and replace the need for injection treatment by applying the current injection frequency paradigms for both newly diagnosed and normalized Vitamin B_{12} deficient patients. AST-726 is proposed to be self-administered at home by the patient, without costly, time-consuming and inconvenient visits to a doctor's office or medical facility needed for each of the many intramuscular injections required for life. Because it is delivered through a nasal spray, additional advantages include freedom from injection pain and reduced anxiety in individuals, including children and the elderly, who may have fear of injections. Ariston believes that the delivery profile of AST-726 is comparable to that of the marketed intramuscular injection, and that therefore newly diagnosed patients will be able to self-administer the nasal spray on a daily basis or several times a week to restore their Vitamin B_{12} status to normal and will then be self-maintained on a single monthly nasal spray treatment.

Additional Clinical Trial Is Needed

AST-726, a commercial nasal spray formulation of hydroxocobalamin, has satisfactorily completed preclinical toxicology, and an Investigational New Drug ("IND") Application has been filed with the FDA. This product candidate is being developed utilizing the 505(b)(2) regulatory pathway. AST-726 has also successfully completed a safety and pharmacokinetic study in healthy volunteers and an end of Phase II meeting with FDA has been completed. Manhattan Pharmaceuticals is planning a Phase III Vitamin B_{12} replacement study in the United States. The study is designed to enroll approximately 40 Vitamin B_{12} deficient patients currently treated with injection therapy. Patients will first be evaluated on injection therapy and then will receive AST-726 by nasal spray on a monthly basis for 12 weeks. The primary purpose of this study is to determine that levels of Vitamin B_{12} in the patients' bloodstream remain within the normal range following monthly administration of AST-726. We anticipate that the data from this study and additional manufacturing information will support the planned 505(b)(2) new drug application ("NDA") filing for AST-726.

AST-915

AST-915 is an orally delivered treatment for essential tremor. Manhattan Pharmaceuticals acquired global rights to AST-915 as part of the Ariston acquisition. This product candidate is being studied under a Cooperative Research and Development Agreement (CRADA) with the National Institutes of Health (NIH) and a Phase 1 clinical study is currently underway in essential tremor patients. AST-915 was formerly referred to as "AST-914 metabolite".

Essential Tremor

Essential tremor is a neurological disorder that is characterized by involuntary shaking of the hands, arms, head, voice, and upper body. The most disabling tremors occur during voluntary movement, affecting common skills such as writing, eating and drinking. Essential tremor is often misdiagnosed as Parkinson's disease, yet according to the National Institutes of Neurological Disorders and Stroke, approximately 8 times as many people have essential tremor as have Parkinson's. Essential tremor is not confined to the elderly. Children, newborns, and middle-aged people can also have the condition.

Market opportunity

Essential tremor is the most common involuntary movement disorder, with increasing incidence as people age. According to the National Institute of Health (NIH), essential tremor affects 14% of people 65 years and older, which equates to approximately 5.4 million Americans. There is no cure for essential tremor and the currently available drug therapies do not work in certain patients, produce at best a 50% response in others and have significant side effects. Manhattan Pharmaceuticals believes AST-915 may provide a new treatment option for this serious and prevalent disorder **.** Manhattan Pharmaceuticals believes that substantial market opportunity also exists internationally.

8% Note

In December 2009, we entered into a Future Advance Promissory Note (the "8% Note") with Ariston under which the Company may withdraw up to $67,000. Principal and interest accrued at 8% shall be due and payable to Ariston on February 10, 2010. As of December 31, 2009, the Company has withdrawn $27,000 from Ariston subject to the terms of the 8% Note. On January 13, 2010, the Company withdrew $20,000 subject to the 8% Note with Ariston Pharmaceuticals, Inc. On January 28, 2010, the Company withdrew an additional $20,000 subject to the 8% Note. On March 4, 2010, the Company repaid Ariston the $67,000 withdrawn subject to the 8% Note and accrued interest of $816.

Equity PIPE

On March 2, 2010, we raised aggregate gross proceeds of approximately $2,547,500 pursuant to a private placement of our securities. We entered into subscription agreements (the "Subscription Agreements") with seventy-seven accredited investors (the "Investors") pursuant to which we sold an aggregate of 101.9 Units (as defined herein) for a purchase price of $25,000 per Unit. Pursuant to the Subscription Agreements, we issued to each Investor units (the "Units") consisting of (i) 357,143 shares of common stock, $0.001 par value per share (the "Common Stock" or "Shares") of the Company and (ii) 535,714 warrants (each a "Warrant" and collectively the "Warrants"), each of which will entitle the holder to purchase one additional share of Common Stock for a period of five years (each a "Warrant Share" and collectively the "Warrant Shares") at an exercise price of $0.08 per share.

The Nordic Put and Nordic Warrant were issued at a value of $0.14 per share and were issued with anti-dilution rights. The issuance of any securities at a value of less than $0.14 per share activates Nordic's anti-dilution rights. The Secured 12% Note transaction included warrants with an exercise price of $0.09 per share, this activated Nordic's anti-dilution rights as reflected in the table below under the caption "Before the Equity Pipe Transaction". Any issuances of any securities subsequent to the Secured 12% Note transaction at a value of less than $0.09 further activates Nordic's anti-dilution rights. The Equity Pipe transaction in March 2010 effectively included the sale of one share of common stock and a warrant to purchase 1.5 shares of common stock for a price of $0.07. The JV Agreement between Nordic and Manhattan governs the antidilution protection to Nordic. Section 5.1 of that agreement state "If shares of Common Stock or Common Stock Equivalents are issued or sold together with other stock or securities or other assets of MHA (Manhattan) for a consideration which covers both, the effective price per share shall be computed with regard to the portion of the consideration so received that may reasonably be determined in good faith by the Board of Directors, to be allocable to such Common Stock or Common Stock Equivalent." The good faith determination of the effective price per share was $0.07 for each share of common stock sold and a de minimus value to the warrants. The Nordic Put and the Nordic Warrant are now valued at a price of $0.07 per share. The following table shows the effect of Nordic's anti-dilution rights.

	Shares Issuable Upon Exercise of Nordic's Put	Shares Issuable Upon Exercise of Nordic's Warrant	Total Shares Issuable Upon Exercise of Nordic's Put and Warrant
Before the Equity Pipe Transaction	55,555,556	11,111,111	66,666,667
Antidilution shares	15,873,015	3,174,603	19,047,618
After the Equity Pipe Transaction	71,428,571	14,285,714	85,714,285

In March 2010, we received correspondence from Nordic that questions how we calculated the anti-dilution shares, as shown above, and suggesting that we did not employ a good faith estimate. We believe our determination was made in good faith and is appropriate.

All of the Investors represented that they were "accredited investors," as that term is defined in Rule 501(a) of Regulation D under the Securities Act, and the sale of the Units was made in reliance on exemptions provided by Regulation D and Section 4(2) of the Securities Act of 1933, as amended.

In connection with the closing of the private placement, we, the placement agent acting in connection with the private placement (the "Placement Agent") and the Investors entered into a Registration Rights Agreement, dated as of March 2, 2010, and we agreed to file a registration statement to register the resale of the Shares, within 60 days of the final closing date and to cause the registration statement to be declared effective within 150 days (or 180 days upon review by the SEC).

We received net proceeds of approximately $2,158,000 after payment of an aggregate of $305,700 of commissions and expense allowance to the Placement Agent, and approximately $83,000 of other offering and related costs in connection with the private placement. In addition, we issued a warrant to purchase 3,639,289 shares of Common Stock at an exercise price of $0.08 per share to the Placement Agent as additional compensation for its services.

We did not use any form of advertising or general solicitation in connection with the sale of the Units. The Shares, the Warrants and the Warrant Shares are non-transferable in the absence of an effective registration statement under the Act, or an available exemption therefrom, and all certificates are imprinted with a restrictive legend to that effect.

Commitments

General

We often contract with third parties to facilitate, coordinate and perform agreed upon research and development of our product candidates. To ensure that research and development costs are expensed as incurred, we record monthly accruals for clinical trials and nonclinical testing costs based on the work performed under the contracts.

These contracts typically call for the payment of fees for services at the initiation of the contract and/or upon the achievement of certain milestones. This method of payment often does not match the related expense recognition resulting in either a prepayment, when the amounts paid are greater than the related research and development costs recognized, or an accrued liability, when the amounts paid are less than the related research and development costs recognized.

Development Commitments

At present we have no development commitments.

Hedrin

In collaboration with Nordic and through the Hedrin JV we are developing Hedrin for the treatment of pediculosis (head lice). To date, Hedrin has been clinically studied in 326 subjects and is currently marketed as a device in Western Europe and as a pharmaceutical in the United Kingdom (U.K.).

In a randomized, controlled, equivalence clinical study conducted in Europe by T&R, Hedrin was administered to 253 adult and child subjects with head louse infestation. The study results, published in the British Medical Journal in June 2005, demonstrated Hedrin's equivalence when compared to the insecticide treatment, phenothrin, the most widely used pediculicide in the U.K. In addition, according to the same study, the Hedrin-treated subjects experienced significantly less irritation (2%) than those treated with phenothrin (9%).

An additional clinical study published in the November 2007 issue of PLoS One, an international, peer-reviewed journal published by the Public Library of Science (PLoS), demonstrated Hedrin's superior efficacy compared to a U.K. formulation of malathion, a widely used insecticide treatment in both Europe and North America. In this randomized, controlled, assessor blinded, parallel group clinical trial, 73 adult and child subjects with head lice infestations were treated with Hedrin or malathion liquid. Using intent-to-treat analysis, Hedrin achieved a statistically significant cure rate of 70% compared to 33% with malathion liquid. Using the per-protocol analysis Hedrin achieved a highly statistically significant cure rate of 77% compared to 35% with malathion. In Europe it has been widely documented that head lice had become resistant to European formulations of malathion, and we believe this resistance had influenced these study results. To date, there have been no reports of resistance to U.S. formulations of malathion. Additionally, Hedrin treated subjects experienced no irritant reactions, and Hedrin showed clinical equivalence to malathion in its ability to inhibit egg hatching. Overall, investigators and study subjects rated Hedrin as less odorous, easier to apply, and easier to wash out, and 97% of Hedrin treated subjects stated they were significantly more inclined to use the product again versus 31% of those using malathion.

Two new, unpublished Hedrin studies were completed by T&R in 2008. In the first, Hedrin achieved a 100% kill rate in vitro, including in malathion resistant head lice. In the other, a clinical field study conducted in Manisa province, a rural area of Western Turkey, Hedrin was administered to 36 adult and child subjects with confirmed head lice infestations. Using per protocol analysis, Hedrin achieved a 97% cure rate. Using intent-to-treat analysis, Hedrin achieved a 92% cure rate since 2 subjects were eliminated due to protocol violations. No subjects reported any adverse events.

In the U.S., we, through the Hedrin JV, are pursuing the development of Hedrin as a medical device. In January 2009, the U.S. Food and Drug Administration ("FDA") Center for Devices and Radiological Health ("CDRH") notified Hedrin JV that Hedrin had been classified as a Class III medical device. A Class III designation means that a Premarket Approval ("PMA") Application will need to be obtained before Hedrin can be marketed in the U.S. At a July 2009 meeting with the FDA, the FDA requested that the confirmatory clinical trials consist of two parallel studies of sixty patients each. The confirmatory clinical trials are expected to commence in the second quarter of 2010.

To date, we have incurred $1,084,000 of project costs for the development of Hedrin. None of these costs were incurred during the year ended December 31, 2009. We do not expect to incur any future costs as the Hedrin JV is now responsible for all costs associated with Hedrin.

Topical GEL for Psoriasis

As a result of our merger with Tarpan Therapeutics in 2005, we held an exclusive, worldwide license to develop and commercialize Topical PTH (1-34) for the treatment of psoriasis. Tarpan acquired the exclusive, worldwide rights pursuant to a 2004 license agreement with IGI, Inc ("IGI").

In April 2006, we encountered a stability issue with the original topical PTH (1-34) product which utilized IGI's Novosome ® formulation technology. In order to resolve that stability issue we created a new topical gel version of PTH (1-34).

In September 2007, the U.S. FDA accepted our Investigational New Drug ("IND") application for this new gel formulation of Topical PTH (1-34), and in October 2007, we initiated and began dosing subjects in a Phase 2a clinical study of Topical PTH (1-34) for the treatment of psoriasis. This U.S., multi-center, randomized, double-blind, vehicle-controlled, parallel group study was designed to evaluate safety and preliminary efficacy of Topical PTH (1-34) in patients with mild to moderate psoriasis. Approximately 54 subjects were enrolled and randomized to receive one of two dose levels of Topical PTH (1-34), or the gel vehicle (placebo), for an 8 week treatment period. In this study the vehicle was the topical gel ("GEL") without the active ingredient, PTH (1-34).

In July 2008 we announced the results of a Phase 2a clinical study where PTH (1-34) failed to show statistically or clinically meaningful improvements in psoriasis as compared to the vehicle (placebo). The Company has conducted no further clinical activities with PTH (1-34), terminated the agreement with IGI in May 2009 and has no further financial liability or commitment to IGI under the license agreement.

The gel vehicle (placebo) used in the above-mentioned study is the Company's proprietary topical GEL which unexpectedly showed evidence of psoriasis improving properties. At the end of week 2, 15% of study subjects treated with the GEL achieved a clear or almost clear state. At the end of week 4, 20% of subjects treated with the GEL had achieved a clear or almost clear state, and at the end of week 8, 25% of subjects had achieved a clear or almost clear state. The Company owns worldwide rights to this topical GEL and is exploring the possibility of developing it as an OTC product for mild psoriasis.

To date, we have incurred $6,504,000 of project costs related to our development of Topical PTH (1-34). These project costs have been incurred since April 1, 2005, the date of the Tarpan Therapeutics acquisition. None of these costs were incurred during the year ended December 31, 2009.

Summary of Contractual Commitments

Leases

Rent expense for the years ended December 31, 2009 and 2008 was $88,363 and $139,636, respectively. Future minimum rental payments subsequent to December 31, 2009 under an operating lease for the Company's office facility, which expires on September 30, 2010, are as follows:

Years Ending December 31,	Commitment
2010	$ 36,000

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements.

Critical Accounting Policies

In December 2001, the SEC requested that all registrants discuss their most "critical accounting policies" in management's discussion and analysis of financial condition and results of operations. The SEC indicated that a "critical accounting policy" is one which is both important to the portrayal of the company's financial condition and results and requires 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.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Research and Development Expenses

All research and development costs are expensed as incurred and include costs of consultants who conduct research and development on behalf of the Company and its subsidiaries. Costs related to the acquisition of technology rights and patents for which development work is still in process are expensed as incurred and considered a component of research and development costs.

The Company often contracts with third parties to facilitate, coordinate and perform agreed upon research and development of a new drug. To ensure that research and development costs are expensed as incurred, the Company records monthly accruals for clinical trials and preclinical testing costs based on the work performed under the contracts.

These contracts typically call for the payment of fees for services at the initiation of the contract and/or upon the achievement of certain milestones. This method of payment often does not match the related expense recognition resulting in either a prepayment, when the amounts paid are greater than the related research and development costs expensed, or an accrued liability, when the amounts paid are less than the related research and development costs expensed.

Share-Based Compensation

We have stockholder-approved stock incentive plans for employees, directors, officers and consultants. Prior to January 1, 2006, we accounted for the employee, director and officer plans using the intrinsic value method. Effective January 1, 2006, we adopted the share-based payment method for employee options using the modified prospective transition method. This new method of accounting for stock options eliminated the option to use the intrinsic value method and required us to expense the fair value of all employee options over the vesting period. Under the modified prospective transition method, we recognized compensation cost for the years ended December 31, 2009 and 2008 which includes a) period compensation cost related to share-based payments granted prior to, but not yet vested, as of January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions; and b) period compensation cost related to share-based payments granted on or after January 1, 2006, based on the grant date fair value estimated in accordance with the new accounting methodology. In accordance with the modified prospective method, we have not restated prior period results.

New Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board (“FASB”) issued the FASB Accounting Standards Codification (“Codification”) as the single source of authoritative U.S. generally accepted accounting principles (“U.S. GAAP”) recognized by the FASB to be applied by nongovernmental entities. Rules and interpretive releases of the SEC under authority of federal securities laws are also sources of authoritative U.S. GAAP for SEC registrants. The Codification is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The Codification will supersede all existing non-SEC accounting and reporting standards. All other nongrandfathered non-SEC accounting literature not included in the Codification will become nonauthoritative. The FASB will not issue new standards in the form of Statements, FASB Staff Positions, or Emerging Issues Task Force Abstracts. Instead, the FASB will issue Accounting Standards Updates, which will serve only to: (a) update the Codification; (b) provide background information about the guidance; and (c) provide the bases for conclusions on the change(s) in the Codification.

In December 2007, the FASB issued a statement that requires all entities to report noncontrolling (minority) interests in subsidiaries as equity in the consolidated financial statements. This statement establishes a single method of accounting for changes in a parent's ownership interest in a subsidiary that do not result in deconsolidation and expands disclosures in the consolidated financial statements. This statement was effective for fiscal years beginning after December 15, 2008 and interim periods within those fiscal years. The adoption of this statement did not have any impact on our financial statements.

In February 2008, the FASB issued two Staff Positions as well as other accounting pronouncements that address fair value measurements on lease classification. The adoption of these pronouncements did not have a material impact on our financial statements.

In March 2008, the FASB issued a pronouncement which requires expanded disclosures about an entity's derivative instruments and hedging activities. This pronouncement requires qualitative disclosures about objectives and strategies for using derivatives, quantitative disclosures about fair value amounts of and gains and losses on derivative instruments, and disclosures about credit-risk-related contingent features in derivative instruments. This pronouncement was effective for the Company as of January 1, 2009, and its adoption did not have any impact on our financial statements.

In June 2008, the FASB ratified a pronouncement which provides that an entity should use a two step approach to evaluate whether an equity-linked financial instrument (or embedded feature) is indexed to its own stock, including evaluating the instrument's contingent exercise and settlement provisions. It also clarifies the impact of foreign currency denominated strike prices and market-based employee stock option valuation instruments on the evaluation. This statement was effective for fiscal years beginning after December 15, 2008. The adoption of this statement had a significant impact on our financial statements (see Note 13 to our financial statements for the period ended December 31, 2009).

In April 2009, the FASB issued a pronouncement which provides guidance on determining when there has been a significant decrease in the volume and level of activity for an asset or liability, when a transaction is not orderly, and how that information must be incorporated into a fair value measurement. This pronouncement also requires expanded disclosures on valuation techniques and inputs and specifies the level of aggregation required for all quantitative disclosures. The provisions of this pronouncement were effective for the quarter ending June 30, 2009. The adoption of this pronouncement did not have any impact on our financial statements.

In April 2009, the FASB issued several pronouncements which makes the guidance on other-than-temporary impairments of debt securities more operational and requires additional disclosures when a company records an other-than-temporary impairment. These pronouncements were effective for interim and annual reporting periods ending after June 15, 2009. We adopted these principles in the second quarter of 2009, which did not have any impact on our financial statements.

In April 2009, the FASB issued several statements which require companies to disclose in interim financial statements the fair value of financial instruments. However, companies are not required to provide in interim periods the disclosures about the concentration of credit risk of all financial instruments that are currently required in annual financial statements. The fair-value information disclosed in the footnotes must be presented together with the related carrying amount, making it clear whether the fair value and carrying amount represent assets or liabilities and how the carrying amount relates to what is reported in the balance sheet. In addition, the companies are required to disclose the method or methods and significant assumptions used to estimate the fair value of financial instruments and a discussion of changes, if any, in the method or methods and significant assumptions during the period. This statement shall be applied prospectively and was effective for interim and annual periods ending after June 15, 2009. To the extent relevant, we adopted the disclosure requirements of this pronouncement for the quarter ended June 30, 2009. The adoption of these statements did not have a material impact on our financial statements

In May 2009, the FASB issued a statement which sets forth the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date in its financial statements, and the disclosures that an entity should make about events or transactions that occurred after the balance sheet date. This statement was effective for interim or annual periods ending after June 15, 2009, and we adopted the provisions of this statement for the quarter ended June 30, 2009. The adoption of this statement did not have a material impact on our financial statements. We have evaluated all events or transactions that occurred after December 31, 2009 up through the date we issued these financial statements, and we have disclosed all events or transactions that have a material impact on our financial statements.

In August 2009, the FASB issued a new pronouncement to provide clarification on measuring liabilities at fair value when a quoted price in an active market is not available. In particular, this pronouncement specifies that a valuation technique should be applied that uses either the quote of the liability when traded as an asset, the quoted prices for similar liabilities when traded as assets, or another valuation technique consistent with existing fair value measurement guidance. This statement is prospectively effective for financial statements issued for interim or annual periods ending after October 1, 2009. The adoption of this statement at December 31, 2009 did not impact the Company's results of operations or financial condition.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

For a list of the financial statements filed as part of this report, see the Index to Financial Statements beginning at Page F-1 of this Annual Report.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A(T). CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

As of December 31, 2009, we carried out an evaluation, under the supervision and with the participation of our Chief Operating and Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")). Based upon that evaluation, our Chief Operating and Financial Officer concluded that our disclosure controls and procedures were effective as of that date to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded , processed, summarized and reported within the time periods specified in the SEC's rules and forms, and to ensure that information required to be disclosed by us in such reports is accumulated and communicated to the our management, including our Chief Operating and Financial Officer, as appropriate to allow timely decisions regarding required disclosure. There were no changes in our internal controls over financial reporting (as defined in Exchange Act Rules 13a – 15(f) and 15d – 15(f)) during the quarter ended December 31, 2009 that have materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

Our disclosure controls or internal controls over financial reporting were designed to provide only reasonable assurance that such disclosure controls or internal control over financial reporting will prevent all errors or all instances of fraud, even as the same are improved to address any deficiencies. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be only reasonable, not absolute assurance that any design will succeed in achieving its stated goals under all potential future conditions. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs.

Because of the inherent limitation of a cost-effective control system, misstatements due to error or fraud may occur and not be detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls.

Management's Report on Internal Control

Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. As defined by the SEC, internal control over financial reporting is a process designed by, or under the supervision of our principal executive and principal financial officers and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements in accordance with U.S. generally accepted accounting principles.

Our 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 our transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with U.S. generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our 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 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 connection with the preparation of our annual financial statements, management has undertaken an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control – Integrated framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO Framework. Management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of those controls.

Based on this evaluation, management has concluded that our internal control over financial reporting is effective as of December 31, 2009.

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

ITEM 9B. OTHER INFORMATION

Submission of Matters to a Vote of Security Holders

We held our Annual Meeting of Stockholders at the offices of Lowenstein Sandler, 65 Livingston Avenue, Roseland, New Jersey 07068, on November 30, 2009. The stockholders took the following actions:

(i) The stockholders ratified the amendment of the Company's Certificate of Incorporation to increase the authorized shares of the Company's common stock from 300,000,000 to 500,000,000. . The stockholders cast 56,236,296 votes for the amendment, 1,912,345 votes against the amendment and 80,219 votes abstained.

(ii) The stockholders elected six directors to serve until the next Annual Meeting of Stockholders. The stockholders present in person or by proxy cast the following numbers of votes in connection with the election of directors, resulting in the election of all nominees:

Nominee	Votes for	Votes withheld
Douglas Abel	57,617,493	611,368
Neil Herskowitz	57,608,691	620,170
Malcolm Hoenlein	57,618,193	610,668
Timothy McInerney	57,544,966	683,895
Richard Steinhart	57,608,966	619,895
Michael Weiser	57,544,964	683,897

(iii) The stockholders ratified the amendment of the Company's 2003 Stock option Plan to increase the number of shares available for issuance thereunder from 10,400,000 to 15,000,000. The stockholders cast 26,558,851 votes for the amendment, 841,975 votes against the amendment, 153,873 votes abstained and there were 30,674,162 broker non-votes.

(iv) The stockholders ratified the appointment of J.H. Cohn LLP as our independent registered public accounting firm for fiscal 2009. The stockholders cast 57,335,262 votes for the appointment, 262,914 votes against the appointment and 630,685 votes abstained.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

Directors

The name and age of each of our six directors as of March 23, 2009, his position with us, his principal occupation, and the period during which such person has served as a director of our company are set forth below. All directors hold office until the next annual meeting of shareholders or until their respective successors are elected and qualified. We believe that each of our directors has professional experience in areas relevant to our strategy and operations. Each of the nominees holds or has held senior-level positions in complex business, government, or academic settings. We also believe each of our nominees has other attributes necessary to create an effective board: high personal and professional ethics, integrity and values; practical wisdom and judgment; an inquisitive and objective perspective; the willingness to engage management and each other in a constructive and collaborative fashion; the ability to devote significant time to serve on our board and its committees; and a commitment to representing the long-term interests of all our shareholders.

Name	Age	Position(s) Held	Director Since
Douglas Abel	48	Director, Chairman of the Board	2005
Neil Herskowitz	53	Director	2004
Michael McGuinness	56	Principal Operating and Financial Officer and Director	2010
Timothy McInerney	49	Director	2004
Malcolm Morville	64	Director	2010
David Shimko	49	Director	2010
Richard I. Steinhart	52	Director	2004

Douglas Abel was our President and Chief Executive Officer of our company from April 2005 through June 2009. Mr. Abel current serves as General Manager for Onset Therapeutics LLC. Mr. Abel was President and CEO of Tarpan Therapeutics, Inc., a privately-held biopharmaceutical company, from November 2004 until April 2005, when Tarpan was acquired by us. Prior to becoming President and CEO of Tarpan, Mr. Abel served as Vice President of the Dermatology Business Unit at Biogen Idec where he worked from August 2000 to November 2004. While at Biogen, he led more than 100 employees to support the launch of AMEVIVE®. Before that, Mr. Abel was at Allergan Pharmaceuticals from December 1987 to August of 2000, with his most recent position being Director of BOTOX® Marketing. Mr. Abel received his A.B. in chemistry from Lafayette College and an M.B.A. from Temple University.

Mr. Abel's qualifications to serve as a director include his 4 years of experience as our Chief Executive Officer, his experience as the CEO of Tarpan, his experience as a vice president at Biogen Idec, his A.B. degree in chemistry and his MBA degree. Serving as the CEO of Manhattan and Tarpan has provided him with relevant perspective on the dynamics and challenges of small, specialty Pharma companies. While at Biogen Idec he has overseen the successful growth and evolution of a business unit.

Neil Herskowitz was appointed to our Board of Directors in July 2004. He has served as the Managing Member of ReGen Partners LLC, an investment fund located in New York, and as the President of its affiliate, Riverside Contracting LLC since June 1998. Mr. Herskowitz currently serves as a director of Innovive Pharmaceuticals (OTCBB: IVPH) a publicly traded pharmaceutical development company. He also serves on the board of directors of Starting Point Services for Children, a not-for-profit corporation, and of Vacation Village, a 220-unit development in Sullivan County, New York. Mr. Herskowitz received a B.B.A. in Finance from Bernard M. Baruch College in 1978

Mr. Herskowitz's qualifications to serve as a director include his executive positions with ReGen Partners and Riverside Contracting and his service as a director of another publicly traded company, Innovive. Serving as an executive of two small companies, ReGen Partners and Riverside Contracting has provided him with relevant perspective on the dynamics and challenges of small companies. His service as a director for Innovive has provided him with relevant perspective on the dynamics and challenges of small, publicly traded life science companies.

Michael G. McGuinness has been our Chief Financial Officer and Secretary since July 2006. Mr. McGuinness was appointed Chief Operating Officer on April 1, 2008. Prior to joining Manhattan, Mr. McGuinness served as chief financial officer of Vyteris Holdings (Nevada), Inc. (OTCBB: VYHN), a product-based drug delivery company, from September 2001 to April 2006, and from 1998 to 2001 he was chief financial officer of EpiGenesis Pharmaceuticals, a privately-held biotechnology company. Mr. McGuinness received a BBA in public accounting from Hofstra University.

Mr. McGuinness' qualifications to serve as a director include his three plus years of service as our Chief Financial Officer and his service as the chief financial officer of Vyteris and his BBA degree in public accounting. Serving as a chief financial officer of publicly traded companies for over eight years has provided him with relevant perspective on the dynamics and challenges of small, publicly traded life science companies.

Timothy McInerney has been a director of our company since July 2004. Mr. McInerney serves as a partner at Riverbank Capital Securities, Inc., a position he has held since June 2007. Mr. McInerney currently serves on the board of directors of ZIOPHARM Oncology Inc. (NASDAQ: ZIOP). From 1992 to March 2007, Mr. McInerney was a Managing Director of Paramount BioCapital, Inc. where he oversaw the overall distribution of Paramount's private equity product. Prior to 1992, Mr. McInerney was a research analyst focusing on the biotechnology industry at Ladenburg, Thalman & Co. Prior to that, Mr. McInerney held equity sales positions at Bear, Stearns & Co. and Shearson Lehman Brothers, Inc. Mr. McInerney also worked in sales and marketing for Bristol-Myers Squibb. He received his B.S. in pharmacy from St. John's University at New York. He also completed a post-graduate residency at the New York University Medical Center in drug information systems.

Mr. McInerney's qualifications to serve as a director include his executive positions with Rvierbank Capital and Paramount, his service as a director of another publicly traded company, ZIOPHARM, his service as a research analyst at Ladenburg Thalman and his B.S. degree in pharmacy. Serving as an executive of two financial firms that specialize in small cap companies, Riverbank Capital and Paramount, and serving on the board of directors for ZIOPHARM has provided him with relevant perspective on the dynamics and challenges of small, publicly traded companies.

Malcolm Morville, Ph.D. , was appointed a director of our Company in March 2010. Dr. Morville serves as President and CEO of Ariston, which as a result of the merger is a wholly-owned subsidiary of Manhattan. Dr. Morville was appointed President and CEO of Ariston in December 2003 and served as a director of Ariston until the consummation of the merger between Ariston and Manhattan. From 1970 to 1988, Dr. Morville was employed by Pfizer, both in the UK and US, in the discovery, development and marketing of many drugs and potential drugs for the treatment of neurology and central nervous system disorders, infectious, immunological, respiratory, cardiovascular and gastrointestinal diseases as well as diabetes and obesity. From 1988 to 1993, he held senior executive management positions at Immulogic Pharmaceuticals Corporation, a public biotechnology company. From 1993 to 2003, Dr. Morville was President and CEO and a director of Phytera, Inc., a private biotechnology corporation. He remains a director of Phytera. From 1993 to 2009, Dr. Morville was a director of Indevus Pharmaceuticals, Inc. (formerly Interneuron Pharmaceuticals, Inc.) a public biopharmaceutical company acquired Endo Pharmaceuticals Holdings, Inc. in March, 2009. Dr. Morville received his B.Sc. and Ph.D. in biochemistry from the University of Manchester Institute of Science and Technology in the U.K.

Dr. Morville's qualifications to serve as a director include his service as the CEO of Ariston, his service as the CEO of Phytera, his service as an executive with Immulogics, his service in the discovery, development and marketing functions for Pfizer and his Ph. D. in biochemistry. Serving as an executive for Ariston, Phytera and Immulogics has provided Dr. Morville with relevant perspective on the dynamics and challenges of life science companies. His service at Pfizer has provided Dr. Morville with relevant perspective on the dynamics and challenges of the development and marketing of pharmaceutical products

David Shimko, Ph.D. , was appointed a director of our Company in March 2010. Mr. Shimko served as a director of Ariston until the consummation of the merger between Ariston and Manhattan. Mr. Shimko co-founded Risk Capital Management Partners LLC, an independent risk management consulting firm with a specialization in financial risk, and served as its President until it was acquired by Towers Perrin in June 2006. Mr. Shimko provided transition services to Towers Perrin in connection with its acquisition of Risk Capital Management through December 2007. Since the acquisition, Mr. Shimko has continued to act as an independent risk management consultant and has served as President of Winhall LLC. Mr. Shimko received his Ph.D. in finance from Northwestern University.

Mr. Shimko's qualifications to serve as a director include his service on the board of directors of Ariston, his serviced as an executive at Risk Capital and Winhall and his Ph.D. in economics. Serving as on the board of directors of Ariston and serving as an executive for Risk Capital and Winhall has provided Mr. Shimko with relevant perspective on the dynamics and challenges of small companies. His Ph.D. in economics and his service as an executive with two companies provided Mr. Shimko with the relevant perspective on the dynamics and challenges of the audit committee of small, publicly traded companies.

Richard I. Steinhart has been a director of our company since July 2004. Since April 2006, Mr. Steinhart has served as Chief Financial Officer of Electro-Optical Sciences, Inc., a publicly-held medical device company. From May 1992 to April 2006, Mr. Steinhart was principal of Forest Street Capital, a boutique investment banking, venture capital, and management consulting firm. Prior to Forest Street Capital, from May 1991 to May 1992, he was the Vice President and Chief Financial Officer of Emisphere Technologies, Inc., a publicly held biopharmaceutical company that is working to develop and commercialize a proprietary oral drug delivery system. Prior to joining Emisphere Technologies, Mr. Steinhart spent seven years at CW Group, Inc., a venture capital firm focused on medical and healthcare investments, where he was a General Partner and Chief Financial Officer. Mr. Steinhart has previously served as a director of a number of privately-held companies, including ARRIS Pharmaceuticals, Inc., a biotechnology company involved with rational drug design; Membrex, Inc., a laboratory equipment manufacturing company; and Photest, Inc., a diagnostics company. He began his career working as a certified public accountant and continues to be a New York State Certified Public Accountant. Mr. Steinhart holds a Bachelors of Business Administration and Masters of Business Administration from Pace University.

Mr. Steeinhart's qualifications to serve as a director include his service as Chief Financial Officer of Electro-Optical Sciences, as a director include his service principal of Forest Street Capital, as Chief Financial Officer of Emisphere Technologies, Inc., and his Certified Public Accounting license. Serving as a chief financial officer of two life science publicly traded companies, Electro-Optical and Emisphere, and serving as executive of a financial firm that specialize in small cap companies has provided Mr. Steinhart with relevant perspective on the dynamics and challenges of small, life science, publicly traded companies. His service as a chief financial officer of two public companies and his Certified Public Accounting license provided Mr. Steinhart with the relevant perspective on the dynamics and challenges of the audit committee of small, publicly traded companies.

There are no family relationships among any of our executive officers, directors and key employees.

Independence of the Board of Directors

Our common stock has not been listed on a national securities exchange since we voluntarily de-listed our shares from the American Stock Exchange, or AMEX, effective March 26, 2008 and therefore, we are not subject to any corporate governance requirements regarding independence of board or committee members. However, we have chosen the definition of independence contained in the AMEX rules as a benchmark to evaluate the independence of its directors. Under the AMEX listing standards, an "independent director" of a company means a person who is not an officer or employee of the company or its subsidiaries and who the board of directors has affirmatively determined does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. After review of all relevant transactions or relationships between each director, or any of his family members, and our company, our senior management and our independent registered public accounting firm, the Board has determined that all of our directors are independent directors within the meaning of the applicable AMEX listing standard, except for Mr. Abel, our former President and Chief Executive Officer, Mr. McGuinness, our Chief Operating and Financial Officer and Dr. Morville, President and CEO of Ariston, a wholly owned subsidiary of the Company.

There were no directors, officers or beneficial owners of more than 10% of any class of equity securities of the Company or any other person subject to section 16 of the Exchange Act that failed to file on a timely basis reports required by section 16(a) of the Exchange Act during the most recent fiscal year or prior fiscal years.

Board Committees

The Board of Directors has three standing committees: an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. The following table provides the current membership for each of the Board committees:

Name of Committee	Membership
Audit	Messrs. Herskowitz, Shimko and Steinhart (Chair)
Compensation	Messrs. Shimko, Steinhart and McInereny (Chair)
Nominating and Governance	Messrs. Herskowitz, McInerney and Abel (Chair)

Audit Committee

The Audit Committee oversees our accounting and financial reporting process. For these purposes, the Audit Committee performs several functions. For example, the Committee evaluates and assesses the qualifications of the independent registered public accounting firm; determines the engagement of the independent registered public accounting firm; determines whether to retain or terminate the existing independent registered public accounting firm; reviews and approves the retention of the independent registered public accounting firm to perform any non-audit services; reviews the financial statements to be included in our Annual Report on Form 10-K; and discusses with management and the independent registered public accounting firm the results of the annual audit and the results of our quarterly financial statements. The Board of Directors adopted a written Audit Committee Charter, a copy of which can be found on our company website at www.manhattanpharma.com .

Our Board of Directors has reviewed the definition of independence for Audit Committee members and has determined that each member of our Audit Committee is independent (as independence for audit committee members is currently defined under applicable SEC rules and the relevant AMEX listing standards. The Board has further determined that Mr. Steinhart qualifies as an "audit committee financial expert," as defined by applicable rules of the SEC.

Compensation Committee

The Compensation Committee of the Board of Directors oversees our compensation policies, plans and programs. The Compensation Committee reviews and approves corporate performance goals and objectives relevant to the compensation of our executive officers and other senior management; reviews and recommends to the Board the compensation and other terms of employment of our Chief Executive Officer and our other executive officers; administers our equity incentive and stock option plans; and makes recommendations to the Board concerning the issuance of awards pursuant to those plans. All current members of the Compensation Committee are independent (as independence is currently defined under applicable AMEX listing standards). The Board of Directors has adopted a written charter of the Compensation Committee, a copy of which can be found on our company website at www.manhattanpharma.com .

Nominating and Governance Committee

The Nominating and Governance Committee considers and recommends to the Board persons to be nominated for election by the stockholders as directors. In addition to nominees recommended by directors, the Nominating and Governance Committee will consider nominees recommended by stockholders if submitted in writing to our Secretary at the address of Company's principal offices. The Board believes that any candidate for director, whether recommended by stockholders or by the Board, should be considered on the basis of all factors relevant to the needs of our company and the credentials of the candidate at the time the candidate is proposed. Such factors include relevant business and industry experience and demonstrated character and judgment. All current members of the Nominating and Corporate Governance Committee are independent (as independence is currently defined under applicable AMEX listing standards). The Board of Directors adopted a written charter of the Nominating and Governance Committee, a copy of which can be found on our company website at www.manhattanpharma.com .

Communication with the Board of Directors

Although we have not adopted a formal process for stockholder communications with our Board of Directors, we believe stockholders should have the ability to communicate directly with the Board so that their views can be heard by the Board or individual directors, as applicable, and that appropriate and timely responses are provided to stockholders. All communications regarding general matters should be directed to our Secretary at the address below and should prominently indicate on the outside of the envelope that it is intended for the complete Board of Directors or for any particular director(s). If no designation is made, the communication will be forwarded to the entire board. Stockholder communications to the Board should be sent to: Corporate Secretary, Attention: Board of Directors (or name(s) of particular directors), Manhattan Pharmaceuticals, Inc., 48 Wall Street, New York, NY 10005.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all officers, directors and employees of our company. A copy of our Code of Business Conduct and Ethics is available on our company's website at www.manhattanpharma.com . If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the code to an executive officer or director, we will promptly disclose the nature of the amendment or waiver by filing with the SEC a current report on Form 8-K.

Executive Officers

Set forth below are the names, ages and titles of all of our executive officers as of March 23, 2010. All directors hold office until the next annual meeting of stockholders or until their respective successors are elected and qualified.

Name	Age	Position
Michael G. McGuinness	56	Chief Operating and Financial Officer & Secretary

The biographies of our executive officers are set forth below.

Michael G. McGuinness has been our Chief Financial Officer and Secretary since July 2006. Mr. McGuinness was appointed Chief Operating Officer on April 1, 2008. Prior to joining Manhattan, Mr. McGuinness served as chief financial officer of Vyteris Holdings (Nevada), Inc. (OTCBB: VYHN), a product-based drug delivery company, from September 2001 to April 2006, and from 1998 to 2001 he was chief financial officer of EpiGenesis Pharmaceuticals, a privately-held biotechnology company. Mr. McGuinness received a BBA in public accounting from Hofstra University.

None of our executive officers is related to any other executive officer or to any of our directors.

ITEM 11. EXECUTIVE COMPENSATION

Summary Compensation of Executive Officers

The following table sets forth all of the compensation awarded to, earned by or paid to (i) each individual serving as our principal executive officer during our last completed fiscal year and (ii) the two most highly compensated executive officers, other than the principal executive officer, that served as an executive officer at the conclusion of the fiscal year ended December 31, 2009 and who received total compensation in excess of $100,000 during such fiscal year (collectively, the "named executives").

Name and Principal Position	Year	Salary	Bonus	Option Awards	Non-Equity Incentive Plan Compensation	Nonqualified Deferred Compensation Earnings	All Other Compensation	Total
Douglas Abel [(1)]	2009	$ 164,053	$ 0	$ 129,571[(3)]	$ 0	$ 0	$ 30,896[(2)]	$ 324,520
Chief Executive Officer and President	2008	$ 338,750	$ 0	$ 153,244[(3)]	$ 0	$ 0	$ 34,000[(2)]	$ 525,994
Michael McGuinness	2009	$ 277,500	$ 0	$ 145,576[(3)]	$ 0	$ 0	$ 9,800[(4)]	$ 432,876
Chief Operating and Financial Officer, Secretary	2008	$ 263,750	$ 0	$ 199,274[(3)]	$ 0	$ 0	$ 9,000[(4)]	$ 472,024

(1) Mr. Abel's employment with us ended effective June 15, 2009.

(2) For 2009 represents consulting fees of $25,000 and a matching contributions by us pursuant to our company's 401(k) retirement plan of $5,896. For 2008 represents a payment in the amount of $25,000, which amount represents the approximate amount of additional expense incurred by Mr. Abel relating to his commuting between Boston and New York, without a tax "gross up", and a matching contributions by us pursuant to our company's 401(k) retirement plan of $9,000.

(3) Represents the amount of share-based costs recognized by us during 2008 and 2007 under SFAS No. 123(R). See Note 3 to our Financial Statements included in our annual reports for 2008 and 2007 on Form 10-K for the assumptions made in the valuation.

(4) Represents matching contributions by us pursuant to our company's 401(k) retirement plan.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding the unexercised options held by each of our named executive officers as of December 31, 2009.

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Michael McGuinness	220,000	0	$ 0.70	07/10/2016
	60,000	0	$ 1.35	07/10/2016
	213,334	106,666	$ 0.95	04/25/2017
	733,334	366,666	$ 0.17	03/25/2018
Douglas Abel	1,300,000	0	$ 0.17	03/25/2018

Employment Agreements

Michael G. McGuinness. Mr. McGuinness' employment with us was governed by an employment agreement from July 7, 2006 to July 6, 2009. Mr. McGuinness has been working for the Company without an employment agreement since July 7, 2009 on the same terms and conditions that were set forth in the employment agreement that expired. The agreement provided for an initial three-year term of employment ending July 2009, subject to additional one-year renewal periods upon the mutual agreement of the parties. Pursuant to the agreement, Mr. McGuinness was entitled to an annual base salary of $205,000 and an annual bonus, payable in the discretion of our Board, of up to 30 percent of his annual base salary. Mr. McGuinness was also entitled to certain other fringe benefits that are made available to our senior executives from time to time, including medical and dental insurance and participation in our 401(k) plan. On November 19, 2008, at the first closing of our Secured 12% Notes private placement, we entered an amendment to the employment agreement, which provide for a reduction of up to one-third of the salary payable to Mr. McGuinness until we shall have received at least $2,500,000 of gross proceeds from the sale of the units or other sales of securities or from other revenue received by us in the operation of our business or any combination of the foregoing.

In addition, in accordance with the terms of the employment agreement, we issued to Mr. McGuinness two 10-year stock options pursuant to our 2003 Stock Option Plan. The first option relates to 220,000 shares of common stock and is exercisable at a price of $0.70, the closing price of our common stock on the date of his employment agreement. The second option relates to 60,000 shares and is exercisable at a price of $1.35 per share. Both options vest in three annual installments commencing July 10, 2007. To the extent Mr. McGuinness' employment with us is terminated prior to the end of such 10-year term, the options shall remain exercisable for a period of 90 days.

Mr. McGuinness' employment agreement further provided that in the event we terminate his employment with us other than as a result of death, for "cause," "disability" or upon a "change of control" (as those terms are defined in the agreement), then (1) Mr. McGuinness would continue receiving his base salary and fringe benefits for a period of six months following such termination, provided, that our obligation to pay such compensation shall be offset by any amounts received by Mr. McGuinness from subsequent employment during such 6-month period, and (2) the vesting of the stock options issued to Mr. McGuinness in accordance with the employment agreement will accelerate and be deemed vested as of the date of termination and will remain exercisable for a period of 90 days following such termination. In the event we terminate Mr. McGuinness' employment during the term of the agreement upon a "change of control" and, if at the time of such termination, the aggregate value of our outstanding common stock is less than $80 million, then (i) Mr. McGuinness will continue receiving his base salary and fringe benefits for a period of six months following such termination and (ii) the portions of the stock options issued in accordance with the employment agreement that have vested as of the date of such termination or that are scheduled to vest in the calendar year of such termination will be deemed vested and will remain exercisable for a period of 90 days following such termination.

Douglas Abel. Mr. Abel's employment with us was governed by an employment agreement from April 1, 2005 to June 15, 2009. Mr. Abel's employment with the Company ended on June 15, 2009. The agreement provided for Mr. Abel's agreement to serve as our President and Chief Executive Officer for (i) an annual base salary of $300,000, subject to a retroactive increase in the amount of $25,000 upon our completing a financing transaction of at least $5,000,000, (ii) a signing bonus in the amount of $200,000, which was payable in two installments during the first year of the agreement, (iii) a discretionary performance-based bonus in an amount equal to up to 50% of Mr. Abel's base salary, and (iv) an option to purchase 2,923,900 shares of our common stock at $1.50 per share with three-year annual vesting, purchasable for a 10-year term. In accordance with the terms of his employment agreement and as a result of our private placement financing that we completed in August 2005, Mr. Abel's salary was increased to $325,000 retroactive to April 1, 2005. On November 19, 2008, at the first closing of our Secured 12% Notes private placement, we entered an amendment to the employment agreement, which provide for a reduction of up to one-third of the salary payable to Mr. Abel until we shall have received at least $2,500,000 of gross proceeds from the sale of the units or other sales of securities or from other revenue received by us in the operation of our business or any combination of the foregoing.

The employment agreement contains customary provisions relating to confidentiality, work-product assignment, non-competition and non-solicitation. In the event Mr. Abel's employment is terminated by us (other than for cause) during the term of the agreement, including a termination upon a change of control (as defined in the agreement), we are required to pay a severance payment ranging from between 6 and 12 month of base salary, depending upon the circumstances of such termination.

Compensation of Directors

Non-employee directors are eligible to participate in our Non-employee Director Compensation Arrangement, which was adopted on January 30, 2007. Under the arrangement, non-employee directors are granted an option to purchase 50,000 shares of common stock upon their initial election or appointment to the board. Thereafter on an annual basis, non-employee directors are entitled to an option to purchase 50,000 shares of common stock. Each non-employee director is entitled to a retainer of $20,000 per year, payable on a quarterly basis. In addition, each such director shall be entitled to a fee of $1,000 for each meeting of the Board attended in person, or $500 for attending a meeting by telephone or other electronic means. Each non-employee director serving on a committee of the Board is entitled to a fee of $1,000 for each meeting of such committee attended by such director in person, or $500 for attending a committee meeting by telephone or other electronic means. Each non-employee director is also entitled to reimbursement for reasonable out-of-pocket expenses incurred in connection with the performance of his service as a director, including without limitation, travel related expenses incurred in connection with attendance at Board or Board committee meetings.

Due to our need to retain funds for the Company's operations payment of cash fees to our directors were suspended for all periods subsequent to March 31, 2008.

The following table shows the compensation earned by each of our non-employee directors for the year ended December 31, 2009:

Name		Fees Earned or Paid in Cash	Option Awards (1)	All Other Compensation	Total
Neil Herskowitz	(3)	$ -	$ 10,809	$ -	$ 10,809
Malcolm Hoenlein	(2),(4)	$ -	$ 10,809	$ -	$ 10,809
Timothy McInerney	(5)	$ -	$ 10,809	$ -	$ 10,809
Richard Steinhart	(6)	$ -	$ 10,809	$ -	$ 10,809
Michael Weiser	(2),(7)	$ -	$ 10,809	$ -	$ 10,809

(1) Represents the amount of share-based costs recognized by us during 2009 under SFAS No. 123(R). See Note 3 to our Financial Statements included in our annual report for 2009 on Form 10-K for the assumptions made in the valuation.
(2) Messrs. Hoenlein and Weiser resigned from the Board of Directors upon the consummation of the merger with Ariston Pharmaceuticals, Inc. on March 8, 2010.

(3) As of March 27, 2009, Mr. Herskowitz had options to purchase an aggregate of 516,010 shares of our common stock.
(4) As of March 27, 2009, Mr. Hoenlein had options to purchase an aggregate of 466,010 shares of our common stock.
(5) As of March 27, 2009, Mr. McInerney had options to purchase an aggregate of 550,000 shares of our common stock.
(6) As of March 27, 2009, Mr. Steinhart had options to purchase an aggregate of 516,010 shares of our common stock.
(7) As of March 27, 2009, Mr. Weiser had options to purchase an aggregate of 480,000 shares of our common stock.

Compensation Committee Interlocks and Insider Participation

There were no interlocks or other relationships with other entities among our executive officers and directors that are required to be disclosed under applicable SEC regulations relating to compensation committee interlocks and insider participation.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENENMENT AND RELATED STOCKHOLDER MATTERS.

The following table sets forth information regarding ownership of shares of our common stock, as of March 23, 2010:

- by each person known by us to be the beneficial owner of 5% or more
- of our common stock;
- by each of our directors and executive officers; and
- by all of our directors and executive officers as a group.

Except as otherwise indicated, each person and each group shown in the table has sole voting and investment power with respect to the shares of common stock indicated. For purposes of the table below, in accordance with Rule 13d-3 under the Securities Exchange Act of 1934, as amended, a person is deemed to be the beneficial owner, of any shares of our common stock over which he or she has or shares, directly or indirectly, voting or investment power or of which he or she has the right to acquire beneficial ownership at any time within 60 days. As used in this prospectus, "voting power" is the power to vote or direct the voting of shares and "investment power" includes the power to dispose or direct the disposition of shares. Common stock beneficially owned and percentage ownership as of March 23, 2010 was based on 114,079,527 shares outstanding. Unless otherwise indicated, the address of each beneficial owner is c/o Manhattan Pharmaceuticals, Inc., 48 Wall Street, New York, NY 10005.

Name of Beneficial Owners, Officers and Directors	Number of Shares Beneficially Owned (#)	Percentage Beneficially Owned (%)
Douglas Abel (1)	1,379,000	1.19%
Neil Herskowitz (2)	725,457	0.63%
Michael McGuinness (3)	2,734,000	2.34%
Timothy McInerney (4)	1,313,870	1.14%
Malcolm Morville	211,568	0.19%
David Shimko	42,313	0.04%
Richard Steinhart (5)	471,643	0.41%
All directors and officers as a group (6) (7 persons)	6,877,851	5.69%
Lester Lipschutz (7) 1650 Arch Street Philadelphia, PA 19103	8,943,362	7.27%
Lindsay Rosenwald (8) 787 Seventh Avenue New York, NY 10019	12,665,163	9.99%
Nordic Biotech Venture Fund II K/S (9) Ostergrade 5, DK-1100 Copenhagen K, Denmark	85,714,285	42.90%

(1) Includes 1,300,000 shares issuable upon exercise of vested portions of options and 24,000 shares issuable upon exercise of warrants.

(2) Includes 466,010 shares issuable upon exercise of vested portions of options, and 43,444 shares issuance upon exercise of warrants; 138,951 shares held by Riverside Contracting, LLC, a limited liability company of which Mr. Herskowitz is a member holding 50% ownership and 44,168 shares held by ReGen Capital II, LLC, a limited liability company of which Mr. Herskowitz is a member holding 50% ownership.

(3) Includes 2,700,000 shares issuable upon the exercise of vested portions of options and 24,000 shares issuable upon exercise of warrants.

(4) Includes 500,000 shares issuable upon exercise of vested portions of options; and 139,863 shares issuable upon exercise of warrants.

(5) Includes 466,010 shares issuable upon exercise of vested portions of options.

(6) Includes 5,432,020 shares issuable upon exercise of vested portions of options; 231,307 shares issuable upon the exercise of warrants; 138,951 shares held by Riverside Contracting, LLC, a limited liability company of which Mr. Herskowitz is a member holding 50% ownership and 44,168 shares held by ReGen Capital II, LLC, a limited liability company of which Mr. Herskowitz is a member holding 50% ownership.

(7) Includes 8,943,362 shares of Common Stock held by separate trusts for the benefit of Dr. Rosenwald or his family with respect to which Mr. Lipschutz is either trustee or investment manager and in either case has investment and voting power. Mr. Lipschutz disclaims beneficial ownership of these shares, except to the extent of his pecuniary interest therein, if any. The foregoing information is derived from a Schedule 13G filed on behalf of the reporting person on August 1, 2007

(8) Includes 6,920,516 shares held directly by Dr. Rosenwald, 5,699,283 shares issuable upon the exercise of warrants, 80 shares held by the Dr. Rosenwald's wife, over which Dr. Rosenwald may be deemed to have sole voting and dispositive power, although he disclaims beneficial ownership of such shares except with regard to his pecuniary interest therein, if any, 33 shares held by Dr. Rosenwald’s children, over which Dr. Rosenwald may be deemed to have sole voting and dispositive power, although he disclaims beneficial ownership of such shares except with regard to his pecuniary interest therein, if any, and 45,251 shares held by Paramount Biosciences LLC, of which Dr. Rosenwald is the sole member. The foregoing information is derived from a Schedule 13G/A filed on behalf of the reporting person on February 3, 2009.

(9) Includes 71,428,571 shares issuable upon exercise of Nordic's right to put all or a portion of Nordic Biotech Venture Fund II K/S' equity interest in H Pharmaceuticals K/S (formerly Hedrin Pharmaceuticals K/S), a Danish limited partnership, of which we and Nordic are partners and 14,285,714 shares issuable upon exercise of an outstanding warrant held by Nordic. Florian Schonharting and Christian Hansen have voting and investment control over such securities.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The Hedrin JV

We and Nordic Biotech Venture Fund II K/S, or Nordic, entered into a joint venture agreement on January 31, 2008, which was amended on February 18, 2008 and on June 9, 2008. Pursuant to the joint venture agreement, in February 2008, (i) Nordic contributed cash in the amount of $2.5 million to H Pharmaceuticals K/S (formerly Hedrin Pharmaceuticals K/S), a newly formed Danish limited partnership, or the Hedrin JV, in exchange for 50% of the equity interests in the Hedrin JV, and (ii) we contributed certain assets to North American rights (under license) to our Hedrin product to the Hedrin JV in exchange for $2.0 million in cash and 50% of the equity interests in the Hedrin JV. On or around June 30, 2008, in accordance with the terms of the joint venture agreement, Nordic contributed an additional $1.25 million in cash to the Hedrin JV, $1.0 million of which was distributed to us and equity in the Hedrin JV was distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%.

Pursuant to the joint venture agreement, upon the classification by the U.S. Food and Drug Administration, or the FDA, of Hedrin as a Class II or Class III medical device, Nordic was required to contribute to the Hedrin JV an additional $1.25 million in cash, $0.5 million of which was to be distributed to us and equity in the Hedrin JV was to be distributed to each of us and Nordic sufficient to maintain our respective ownership interests at 50%. The FDA notified the Hedrin JV that Hedrin has been classified as a Class III medical device and in February 2009, Nordic made the $1.25 million investment in the Hedrin JV, the Hedrin JV made the $0.5 million milestone payment to us and equity in the Hedrin JV was distributed to us and Nordic Nordic sufficient to maintain our respective ownership interests at 50%. In accordance with the terms of the joint venture agreement, the Hedrin JV has received a total of $1.5 million cash to be applied toward the development and commercialization of Hedrin in North America.

The Hedrin JV will be responsible for the development and commercialization of Hedrin for the North American market and all associated costs including clinical trials, if required, regulatory costs, patent costs, and future milestone payments owed to Thornton & Ross Ltd., or T&R, the licensor of Hedrin. The Hedrin JV will engage us to provide management services to the Hedrin JV in exchange for an annualized management fee, which for 2008, on an annualized basis, is $527,000. The profits of the Hedrin JV will be shared by us and Nordic in accordance with our respective equity interests in the Hedrin JV, of which we each currently hold 50%, except that Nordic is entitled to receive a minimum return each year from the Hedrin JV equal to 6% on Hedrin sales, as adjusted for any change in Nordic's equity interest in the Hedrin JV, before any distribution is made to us. If the Hedrin JV realizes a profit in excess of the Nordic minimum return in any year, then such excess shall first be distributed to us until our distribution and the Nordic minimum return are in the same ratio as our respective equity interests in the Hedrin JV and then the remainder, if any, is distributed to Nordic and us in the same ratio as our respective equity interests. However, in the event of a liquidation of the Hedrin JV, Nordic's distribution in liquidation must equal the amount Nordic invested in the Hedrin JV ($5 million) plus 10% per year, less the cumulative distributions received by Nordic from the Hedrin JV before any distribution is made to us. If the Hedrin JV's assets in liquidation exceed the Nordic liquidation preference amount, then any excess shall first be distributed to us until our distribution and the Nordic liquidation preference amount are in the same ratio as our respective equity interests in the Hedrin JV and then the remainder, if any, is distributed to Nordic and us in the same ratio as our respective equity interests. Further, in no event shall Nordic's distribution in liquidation be greater than assets available for distribution in liquidation.

Pursuant to the terms of the joint venture agreement, Nordic has the right to nominate one person for election or appointment to our board of directors. The Hedrin JV's board of directors consists of four members, two members appointed by us and two members appointed by Nordic. Nordic has the right to appoint one of the directors as chairman of the board. The chairman has certain tie breaking powers. In the event that the final payment milestone described above is not achieved by March 30, 2009, then the Hedrin JV 's board of directors will increase to five members, two appointed by us and three appointed by Nordic.

Pursuant to the joint venture agreement, Nordic has the right to put all or a portion of its interest in the Hedrin JV in exchange for such number of shares of our common stock equal to the amount of Nordic's investment in the Hedrin JV divided by $0.14, as adjusted from time to time for stock splits and other specified events, multiplied by a conversion factor, which is (i) 1.00 for so long as Nordic's distributions from the Hedrin JV are less than the amount of its investment, (ii) 1.25 for so long as Nordic's distributions from the Hedrin JV are less than two times the amount of its investment but greater than or equal to the amount of its investment amount, (iii) 1.50 for so long as Nordic's distributions from the Hedrin JV are less than three times the amount of its investment but greater than or equal to two times the amount of its investment amount, (iv) 2.00 for so long as Nordic's distributions from the Hedrin JV are less than four times the amount of its investment but greater than or equal to three times the amount of its investment amount and (v) 3.00 for so long as Nordic's distributions from Hedrin JV are greater than or equal to four times the amount of its investment. The put right expires upon the earlier to occur of (i) February 25, 2018 and (ii) 30 days after the date when Nordic's distributions from the Hedrin JV exceed five times the amount Nordic has invested in the Hedrin JV (or 10 days after such date if we have provided Nordic notice thereof).

Pursuant to the joint venture agreement, we have the right to call all or a portion of Nordic's equity interest in the Hedrin JV in exchange for such number of shares of our common stock equal to the portion of Nordic's investment in the Hedrin JV that we call by the dollar amount of Nordic's investment as of such date in the Hedrin JV, divided by $0.14, as adjusted from time to time for stock splits and other specified events. The call right is only exercisable by us if the price of our common stock has closed at or above $1.40 per share for 30 consecutive trading days. During the first 30 consecutive trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 25% of the call right. During the second 30 consecutive trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 50% of the call right on a cumulative basis. During the third consecutive 30 trading days in which our common stock closes at or above $1.40 per share, we may exercise up to 75% of the call right on a cumulative basis. During the fourth consecutive 30 days in which our common stock closes at or above $1.40 per share, we may exercise up to 100% of the call right on a cumulative basis. Nordic may refuse the call, either by paying $1.5 million multiplied by the percentage of Nordic's investment being called or forfeiting an equivalent portion of the put right, calculated on a pro rata basis for the percentage of the Nordic equity interest called by us. The call right expires on February 25, 2013. For purposes of Nordic's right to put, and our right to call, all or a portion of Nordic's equity interest in the Hedrin JV, the amount of Nordic's investment is currently $5,000,000.

As per the limited Partnership Agreement between the Company and Nordic (the "LPA") in the event that a limited partner in the Hedrin JV (a "Limited Partner") determines, in its reasonable goods faith discretion, that the Hedrin JV requires additional capital for the proper conduct of its business that Limited Partner shall provide each Limited Partner with a written request for contribution of such Limited Partner's proportionate share, in accordance to the then respective equity ownership in the Hedrin JV, of such requested additional capital amount.

As per the terms of the LPA if a Limited partner declines to so contribute, elects to contribute but thereafter fails to do so timely, or elects to contribute and timely does contribute some, but not all of, its proportionate share of the requested additional capital amount, the other Limited Partner shall have the option to contribute the remaining balance of such requested additional capital amount.

As per the terms of the LPA the General Partner shall determine the fair market value of the shares for purposes of determining how to allocate the number of shares of the Hedrin JV to be issued in consideration for the contribution of capital. If the general Partner is unable to determine the fair market value of the shares, the fair market value for the shares shall be determined in good faith by the contributing Limited Partner if such amount is equal to or greater than the most recent valuation of such Hedrin JV shares.

On December 31, 2009 Nordic Biotech Venture Fund II ("Nordic") delivered a written notice to the Company for a $1,000,000 capital increase to the Hedrin JV. In January 2010 Nordic made its capital contribution to the Hedrin JV of $500,000. The Company did not have sufficient funds to make such a capital contribution within the required time prescribed in the LPA.

The General Partner was unable to determine the fair market value of the shares. The contributing Limited Partner, Nordic, determined in good faith that the fair market value of the shares is equal to the most recent valuation. The most recent valuation was the February 2009 investment of $1,500,000 into the Hedrin JV by Nordic at $5,000 per share. As a result of Nordic's investing an additional $500,000 in the Hedrin JV the ownership percentages of the Hedrin JV have changed from 50% to Nordic and 50% for the Company to 52.38% to Nordic and 47.62% for the Company. In the event that Nordic exercises its option to invest the remaining $500,000 of the $1,000,000 capital increase then the ownership percentage shall change to 54.55% for Nordic and 45.45% for the Company.

Issuance of Secured Promissory Notes and Warrants

On September 11, 2008, we issued a secured promissory note in the principal amount of $12,000 to each of Douglas Abel, our President and Chief Executive Officer and a director of our company; Michael Weiser, a director of our company; Timothy McInerny, a director of our company; Neil Herskowitz, a director of our company, and Michael McGuiness, our Chief Financial Officer and Chief Operating Officer. Principal and interest on the notes are payable in cash on March 10, 2009 unless paid earlier by us. In connection with the issuance of the notes, we issued to each noteholder a 5-year warrant to purchase 24,000 shares of our common stock at an exercise price of $0.20 per share. We granted to the noteholders a continuing security interest in certain specific refunds, deposits and repayments due to us and expected to be repaid to us in the next several months. The secured 10% notes were repaid in February 2009 along with interest thereon.

We believe that all of the transactions set forth above were made on terms no less favorable to us than could have been obtained from unaffiliated third parties. All such transactions have been reviewed by the audit committee of our Board of Directors and approved by them. All future transactions between us and our officers, directors and principal shareholders and their affiliates will be on terms no less favorable than could be obtained from unaffiliated third parties and will be approved by our audit committee or another independent committee of our Board of Directors.

Issuance of Common Shares and Warrants

On March 2, 2010, the Company raised aggregate gross proceeds of approximately $2,547,500 pursuant to a private placement of its securities. The Company entered into subscription agreements (the "Subscription Agreements") with seventy-seven accredited investors (the "Investors") pursuant to which the Company sold an aggregate of 101.9 Units (as defined herein) for a purchase price of $25,000 per Unit. Pursuant to the Subscription Agreements, the Company issued to each Investor units (the "Units") consisting of (i) 357,143 shares of common stock, $0.001 par value per share (the "Common Stock" or "Shares") of the Company and (ii) 535,714 warrants (each a "Warrant" and collectively the "Warrants"), each of which will entitle the holder to purchase one additional share of Common Stock for a period of five years (each a "Warrant Share" and collectively the "Warrant Shares") at an exercise price of $0.08 per share. Dr. Lindsay Rosenwald, a more than 5% beneficial owner of Manhattan common stock, purchased 10 units for $250,000.

Director Independence

For information on director independence, please see Item 10 above under the caption "Independence of the Board of Directors".

ITEM 14. PRINCIPAL ACCOUNTANTING FEES AND SERVICES.

Fees Billed to the Company by Its Independent Auditors

The following is a summary of the fees billed to us by J.H. Cohn LLP, our independent registered public accounting firm for professional services rendered for fiscal years ended December 31, 2009 and 2008:

	J.H. Cohn LLP	
Fee Category	**Fiscal 2009 Fees**	**Fiscal 2008 Fees**
Audit Fees	$ 65,797	$ 149,818
Audit-Related Fees [(1)]	35,504	29,403
Tax Fees [(2)]	12,250	12,500
All Other Fees [(3)]	-	-
Total Fees	**$ 113,551**	**$ 191,721**

(1) Audit-Related Fees consist principally of assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements but not reported under the caption "Audit Fees." These fees include review of registration statements.

(2) Tax Fees consist of fees for tax compliance, tax advice and tax planning.

(3) All Other Fees consist of aggregate fees billed for products and services provided by the independent registered public accounting firm, other than those disclosed above.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

At present, our audit committee approves each engagement for audit or non-audit services before we engage our independent registered public accounting firm to provide those services. Our audit committee has not established any pre-approval policies or procedures that would allow our management to engage our independent registered public accounting firm to provide any specified services with only an obligation to notify the audit committee of the engagement for those services. None of the services provided by our independent registered public accounting firm for fiscal 2008 was obtained in reliance on the waiver of the pre-approval requirement afforded in SEC regulations.

ITEM 15. EXHIBITS LIST

The following documents are included or incorporated by reference in this report.

Exhibit No.	Description
2.1	Agreement and Plan of Merger among the Company, Manhattan Pharmaceuticals Acquisition Corp. and Manhattan Research Development, Inc. (formerly Manhattan Pharmaceuticals, Inc.) dated December 17, 2002 (incorporated by reference to Exhibit 2.1 from Form 8-K filed March 5, 2003).
2.2	Agreement and Plan of Merger among the Registrant, Tarpan Therapeutics, Inc. and Tarpan Acquisition Corp., dated April 1, 2005 (incorporated by reference to Exhibit 2.1 of the Registrant's Form 8-K/A filed June 15, 2005).
2.3	Agreement and Plan of Merger among the Registrant, Ariston Pharmaceuticals, Inc., and Ariston Merger Corp. dated March 8, 2010 (incorporated by reference to the Registrant's Current Report on Form 8_K filed March 12, 2010.
3.1	Certificate of incorporation, as amended through September 25, 2003 (incorporated by reference to Exhibit 3.1 to the Registrant's Form 10-QSB for the quarter ended September 30, 2003).
3.2	Bylaws, as amended to date (incorporated by reference from Registrant's registration statement on Form SB-2, as amended (File No.33-98478)).
4.1	Specimen common stock certificate (incorporated by reference from Registrant's registration statement on Form SB-2, as amended (File No.33-98478)).
4.2	Form of warrant issued by Manhattan Research Development, Inc., which automatically converted into warrants to purchase shares of the Registrant's common stock upon the merger transaction with such company (incorporated by reference to Exhibit 4.1 to the Registrant's Form 10-QSB for the quarter ended March 31, 2003).
4.3	Form of warrant issued to placement agents in connection with the Registrant's November 2003 private placement of Series A Convertible Preferred Stock and the Registrant's January 2004 private placement (incorporated by reference to Exhibit 4.18 to the Registrant's Registration Statement on Form SB-2 filed January 13, 2004 (File No. 333-111897)).
4.4	Form of warrant issued to investors in the Registrant's August 2005 private placement (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K filed September 1, 2005).
4.5	Form of warrant issued to placement agents in the Registrant's August 2005 private placement (incorporated by reference to Exhibit 4.2 of the Registrant's Form 8-K filed September 1, 2005).
4.6	Warrant, dated April 30, 2008, issued to Nordic Biotech Venture Fund II K/S (incorporated by reference to Exhibit 4.6 of the Registrant's Registration Statement on Form S-1 filed on May 1, 2008 (File No. 333-150580)).
4.7	Form of Warrant issued to Noteholders on September 11, 2008 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on September 15, 2008)

4.8	Form of Warrant issued to Noteholders on November 19, 2008 (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K filed on November 25, 2008)
4.9	Form of Warrant issued to investors in March 2010 private placement
4.10	Form of Warrant issued to placement agent in March 2010 private placement
10.1	1995 Stock Option Plan, as amended (incorporated by reference to Exhibit 10.18 to the Registrant's Form 10-QSB for the quarter ended September 30, 1996).
10.2	Form of Notice of Stock Option Grant issued to employees of the Registrant from April 12, 2000 to February 21, 2003 (incorporated by reference to Exhibit 99.2 of the Registrant's Registration Statement non Form S-8 filed March 24, 1998 (File 333-48531)).
10.3	Schedule of Notices of Stock Option Grants, the form of which is attached hereto as Exhibit 4.2.
10.4	Form of Stock Option Agreement issued to employees of the Registrant from April 12, 2000 to February 21, 2003 (incorporated by reference to Exhibit 99.3 to the Registrant's Registration Statement on Form S-8 filed March 24, 1998 (File 333-48531)).
10.5	License Agreement dated on or about February 28, 2002 between Manhattan Research Development, Inc. (f/k/a Manhattan Pharmaceuticals, Inc.) and Oleoyl-Estrone Developments SL (incorporated by reference to Exhibit 10.6 to the Registrant's Amendment No. 2 to Form 10-QSB/A for the quarter ended March 31, 2003 filed on March 12, 2004).
10.6	License Agreement dated April 4, 2003 between the Registrant and NovaDel Pharma, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Amendment No. 1 to Form 10-QSB/A for the quarter ended June 30, 2003 filed on March 12, 2004).++
10.7	2003 Stock Option Plan (incorporated by reference to Exhibit 4.1 to Registrant's Registration Statement on Form S-8 filed February 17, 2004).
10.8	Employment Agreement dated April 1, 2005, between the Registrant and Douglas Abel (incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K/A filed June 15, 2005).
10.9	Sublicense Agreement dated April 14, 2004 between Tarpan Therapeutics, Inc., the Registrant's wholly-owned subsidiary, and IGI, Inc. (incorporated by reference to Exhibit 10.109 to IGI Inc.'s Form 10-Q for the quarter ended March 31, 2004 (File No. 001-08568).
10.10	Form of subscription agreement between the Registrant and the investors in the Registrant's August 2005 private placement (incorporated by reference as Exhibit 10.1 to the Registrant's Form 8-K filed September 1, 2005).
10.11	Separation Agreement between the Registrant and Alan G. Harris December 21, 2007 (incorporated by reference to Exhibit 10.11 to the Registrant's Form 10-K filed March 31, 2008.)
10.12	Employment Agreement dated July 7, 2006 between the Registrant and Michael G. McGuinness (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed July 12, 2006.)
10.13	Summary terms of compensation plan for Registrant's non-employee directors (incorporated by reference to Exhibit 10.1 of Registrant's Form 8-K filed February 5, 2007).
10.14	Form of Stock Option Agreement issued under the Registrant's 2003 Stock Option Plan (Incorporated by reference to Exhibit 10.15 to the Registrant's Form 10-KSB filed April 2, 2078.)

10.15	Exclusive License Agreement for “Altoderm” between Thornton & Ross Ltd. and Manhattan Pharmaceuticals, Inc. dates April 3, 2007. (Incorporated by reference to Exhibit 10.3 of the registrant’s form 10-Q for the quarter ended June 30, 2007 filed on August 14, 2007.)
10.16	Exclusive License Agreement for “Altolyn” between Thornton &Ross Ltd. and Manhattan Pharmaceuticals, Inc. dated April 3, 2007. (Incorporated by reference to Exhibit 10.4 of the registrant’s form 10-Q for the quarter ended June 30, 2007 filed on August 14, 2007.)
10.17	Exclusive License Agreement for “Hedrin” between Thornton &Ross Ltd. , Kerris, S.A. and Manhattan Pharmaceuticals, Inc. dated June 26, 2007. (Incorporated by reference to Exhibit 10.5 of the registrant’s form 10-Q for the quarter ended June 30, 2007 filed on August 14, 2007.)
10.18	Supply Agreement for “Hedrin” between Thornton & Ross Ltd. and Manhattan Pharmaceuticals, Inc. dated June 26, 2007. (Incorporated by reference to Exhibit 10.6 of the registrant’s form 10-Q for the quarter ended June 30, 2007 filed on August 14, 2007.)
10.19	Joint Venture Agreement between Nordic Biotech Fund II K/S and Manhattan Pharmaceuticals, Inc. to develop and commercialize “Hedrin” dated January 31, 2008.
10.20	Amendment No. 1, dated February 25, 2008, to the Joint Venture Agreement between Nordic Biotech Fund II K/S and Manhattan Pharmaceuticals, Inc. to develop and commercialize “Hedrin” dated January 31, 2008 (Incorporated by reference to Exhibit 10.20 to the Registrant's Form 10-K filed March 31, 2008).
10.21	Omnibus Amendment to Joint Venture Agreement and Additional Agreements, dated June 9, 2008, among Manhattan Pharmaceuticals, Inc., Hedrin Pharmaceuticals K/S, Hedrin Pharmaceuticals General Partner ApS and Nordic Biotech Venture Fund II K/S.
10.22	Assignment and Contribution Agreement between Hedrin Pharmaceuticals K/S and Manhattan Pharmaceuticals, Inc. dated February 25, 2008. (Incorporated by reference to Exhibit 10.21 to the Registrant's Form 10-K filed March 31, 2008.)
10.23	Registration Rights Agreement between Nordic Biotech Venture Fund II K/S and Manhattan Pharmaceuticals, Inc. dated February 25, 2008. (Incorporated by reference to Exhibit 10.22 to the Registrant's Form 10-K filed March 31, 2008.)
10.24	Letter Agreement, dated September 17, 2008, between Nordic Biotech Venture Fund II K/S and Manhattan Pharmaceuticals, Inc.
10.25	Amendment to Employment Agreement by and between Manhattan Pharmaceuticals, Inc. and Douglas Abel (Incorporated by reference to Exhibit 10.23 to the Registrant's Form 10-K filed March 31, 2008.)
10.26	Form of Secured Promissory Note, dated September 11, 2008 (Incorporated by reference to Exhibit 10.1 to the Registrant’s Current Report on Form 8-K filed on September 15, 2008)
10.27	Securities Purchase Agreement, dated November 19, 2008, by and among the Registrant and the investors listed on Exhibit A-1 and A-2 thereto (incorporated by reference to Exhibit 10.1 to the Registrant’s Current Report on Form 8-K filed on November 25, 2008)
10.28	Registration Rights Agreement, dated November 19, 2008, by and among the Registrant, the Placement Agent and the investors listed on Exhibit A thereto (incorporated by reference to Exhibit 10.2 to the Registrant’s Current Report on Form 8-K filed on November 25, 2008)

10.29	Security Agreement, dated November 19, 2008, by and among the Registrant and each person named on Exhibit A-1 and A-2 of the Securities Purchase Agreement (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed on November 25, 2008)
10.30	Default Agreement, dated November 19, 2008, by and among the Registrant and the persons and entities listed on Schedule A thereto (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed on November 25, 2008)
10.31	Form of 12% Senior Secured Promissory Note (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed on November 25, 2008)
10.32	Amendment No. 2 to the Employment Agreement between the Registrant and Douglas Abel, dated November 19, 2008 (incorporated by reference to Exhibit 10.7 to the Registrant's Current Report on Form 8-K filed on November 25, 2008)
10.33	Amendment No. 1 to the Employment Agreement between the Registrant and Michael McGuinness, dated November 19, 2008 (incorporated by reference to Exhibit 10.8 to the Registrant's Current Report on Form 8-K filed on November 25, 2008)
10.34	Form of Placement Agent Warrant (incorporated by reference to Exhibit 10.9 to the Registrant's Current Report on Form 8-K filed on November 25, 2008)
10.35	Form of Subscription Agreement by and among Manhattan Pharmaceuticals, Inc., the Placement Agent and certain investors listed therein in connection with the March 2010 private placement
10.36	Placement Agency Agreement dated December 28, 2009 by and between National Securities Corporation and Manhattan Pharmaceuticals, Inc. in connection with the March 2010 private placement
10.37	Registration Rights Agreement dated March 2, 2010 by and among Manhattan Pharmaceuticals, Inc., the Placement Agent and certain investors listed therein in connection with the March 2010 private placement
23.1	Consent of J.H. Cohn LLP
31.1	Certification of Principal Executive Officer
31.2	Certification of Principal Financial Officer
32.1	Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

++ Confidential treatment has been granted as to certain portions of this exhibit pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act, of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on March 31, 2010.

Manhattan Pharmaceuticals, Inc.

By: /s/ Michael McGuinness
Michael McGuinness
Chief Operating and Financial Officer

In accordance with the Securities Exchange Act, this report has been signed below by the following persons on behalf of Manhattan Pharmaceuticals, Inc. and in the capacities and on the dates indicated.

Signature	**Title**	**Date**
/s/ Michael G. McGuinness Michael G. McGuinness	Secretary and Chief Operating and Financial Officer, and Director (principal executive, accounting and financial officer)	March 31, 2010
/s/ Douglas Abel Douglas Abel	Director and Chairman	March 31, 2010
/s/ Neil Herskowitz Neil Herskowitz	Director	March 31, 2010
/s/ Timothy McInerney Timothy McInerney	Director	March 31, 2010
/s/ Malcolm Morville Malcolm Morville	Director	March 31, 2010
/s/ David Shimko David Shimko	Director	March 31, 2010
/s/ Richard Steinhart Richard Steinhart	Director	March 31, 2010

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Manhattan Pharmaceuticals, Inc.

We have audited the accompanying balance sheets of Manhattan Pharmaceuticals, Inc. (a development stage company) as of December 31, 2009 and 2008, and the related statements of operations, stockholders' equity (deficiency) and cash flows for the years then ended and for the period from August 6, 2001 (date of inception) to December 31, 2009. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Manhattan Pharmaceuticals, Inc. as of December 31, 2009 and 2008, and its results of operations and cash flows for the years then ended and for the period from August 6, 2001 (date of inception) to December 31, 2009, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 13 to the financial statements, the Company adopted new accounting guidance for whether an equity linked financial instrument is indexed to its own stock.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has incurred net losses and negative cash flows from operating activities from its inception through December 31, 2009 and has an accumulated deficit and negative working capital as of December 31, 2009. These matters raise substantial doubt about the Company’s ability to continue as a going concern. Management’s plans regarding these matters are also described in Note 2. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ J.H. Cohn LLP

Roseland, New Jersey
March 31, 2010

MANHATTAN PHARMACEUTICALS, INC.
(A Development Stage Company)
Balance Sheets

	December 31, 2009	December 31, 2008
Assets		
Current assets:		
Cash and cash equivalents	$ 17,996	$ 106,023
Restricted cash	-	730,499
Secured 12% notes payable issue costs, current portion	158,552	-
Other current assets	87,177	37,718
Total current assets	263,725	874,240
Property and equipment, net	3,541	9,072
Secured 12% notes payable issue costs	42,420	330,756
Convertible 12% note payable issue costs	34,606	-
Other assets	21,370	34,895
Total assets	$ 365,662	$ 1,248,963
Liabilities and Stockholders' Deficiency		
Current Liabilities:		
Secured 10% notes payable	$ -	$ 70,000
8% note payable	27,000	-
Secured 12% notes payable, current portion, net	1,247,062	-
Accounts payable	215,400	542,296
Interest payable on secured 12% notes, current portion	182,193	-
Accrued expenses	75,775	874,072
Derivative liability	784,777	-
Total current liabilities	2,532,207	1,486,368
Secured 12% notes payable, net	384,473	1,174,107
Interest payable on secured 12% notes payable	46,381	15,237
Convertible 12% note payable, net	17,808	-
Interest payable on convertible 12% note	8,667	-
Non-interest bearing note payable, net	211,900	-
Exchange obligation	3,949,176	2,949,176
Total liabilities	7,150,612	5,624,888
Commitments and contingencies		
Stockholders' deficiency:		
Preferred stock, $.001 par value. Authorized 1,500,000 shares; no shares issued and outstanding at December 31, 2009 and 2008	-	-
Common stock, $.001 par value. Authorized 500,000,000 shares; 70,624,232 shares issued and outstanding at December 31, 2009 and 2008	70,624	70,624
Additional paid-in capital	55,077,861	54,821,379
Deficit accumulated during the development stage	(61,933,435)	(59,267,928)
Total stockholders' deficiency	(6,784,950)	(4,375,925)
Total liabilities and stockholders' deficiency	$ 365,662	$ 1,248,963

See accompanying notes to financial statements.

MANHATTAN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statements of Operations

	Years ended December 31,		Cumulative period from August 6, 2001 (inception) to December 31,
	2009	2008	2009
Revenue	$ -	$ -	$ -
Costs and expenses:			
Research and development	40,376	1,802,793	28,332,211
General and administrative	1,731,182	2,609,910	18,193,455
In-process research and development charge	-	-	11,887,807
Impairment of intangible assets	-	-	1,248,230
Loss on disposition of intangible assets	-	-	1,213,878
Total operating expenses	1,771,558	4,412,703	60,875,581
Operating loss	(1,771,558)	(4,412,703)	(60,875,581)
Other (income) expense:			
Equity in losses of Hedrin JV	500,000	250,000	750,000
Interest and other income	(586,697)	(458,634)	(1,867,229)
Change in fair value of derivative	560,065	-	430,070
Interest and amortization expense	548,359	64,790	641,400
Realized gain on sale of marketable equity securities	-	-	(76,032)
Total other (income) expense	1,021,727	(143,844)	(121,791)
Net loss	(2,793,285)	(4,268,859)	(60,753,790)
Preferred stock dividends (including imputed amounts)	-	-	(1,179,645)
Net loss applicable to common shares	$ (2,793,285)	$ (4,268,859)	$ (61,933,435)
Net loss per common share:			
Basic and diluted	$ (0.04)	$ (0.06)	
Weighted average shares of common stock outstanding:			
Basic and diluted	70,624,232	70,624,232	

See accompanying notes to financial statements.

MANHATTAN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statements of Stockholders' Equity (Deficiency)

	Common stock shares	Common stock amount	Additional paid-in capital	Deficit accumulated during development stage	Other	Total stockholders' equity (deficiency)
Stock issued at $0.0004 per share for subscription receivable	10,167,741	$ 10,168	$ (6,168)	$ -	$ (4,000)	$ -
Net loss	-	-	-	(56,796)	-	(56,796)
Balance at December 31, 2001	10,167,741	10,168	(6,168)	(56,796)	(4,000)	(56,796)
Proceeds from subscription receivable	-	-	-	-	4,000	4,000
Stock issued at $0.0004 per share for license rights	2,541,935	2,542	(1,542)	-		1,000
Stock options issued for consulting services	-	-	60,589	-	(60,589)	-
Amortization of unearned consulting services	-	-	-	-	22,721	22,721
Common stock issued at $0.63 per share, net of expenses	3,043,332	3,043	1,701,275	-	-	1,704,318
Net loss	-	-		(1,037,320)		(1,037,320)
Balance at December 31, 2002	15,753,008	15,753	1,754,154	(1,094,116)	(37,868)	637,923
Common stock issued at $0.63 per share, net of expenses	1,321,806	1,322	742,369	-		743,691
Effect of reverse acquisition	6,287,582	6,287	2,329,954	-		2,336,241
Amortization of unearned consulting costs	-	-	-	-	37,868	37,868
Unrealized loss on short-term investments	-	-	-	-	(7,760)	(7,760)
Payment for fractional shares for stock combination	-	-	(300)	-		(300)
Preferred stock issued at $10 per share, net of expenses	-	-	9,045,176	-	1,000	9,046,176
Imputed preferred stock dividend			418,182	(418,182)		-
Net loss	-	-	-	(5,960,907)		(5,960,907)
Balance at December 31, 2003	23,362,396	23,362	14,289,535	(7,473,205)	(6,760)	6,832,932
						-
Exercise of stock options	27,600	27	30,073	-		30,100
Common stock issued at $1.10, net of expenses	3,368,952	3,369	3,358,349	-		3,361,718
Preferred stock dividend accrued	-	-	-	(585,799)		(585,799)
Preferred stock dividends paid by issuance of shares	-	-	281,073	-	25	281,098
Conversion of preferred stock to common stock at $1.10 per share	1,550,239	1,551	(1,380)	-	(171)	-
Warrants issued for consulting services	-	-	125,558	-	(120,968)	4,590
Amortization of unearned consulting costs	-	-	-	-	100,800	100,800
Unrealized gain on short-term investments and reversal of unrealized loss on short-term investments	-	-	-	-	20,997	20,997
Net loss	-	-	-	(5,896,031)	-	(5,896,031)
Balance at December 31, 2004	28,309,187	28,309	18,083,208	(13,955,035)	(6,077)	4,150,405
Common stock issued at $1.11 and $1.15, net of expenses	11,917,680	$ 11,918	$ 12,238,291	$ -		$ 12,250,209
Common stock issued to vendor at $1.11 per share in satisfaction of accounts payable	675,675	676	749,324	-		750,000
Exercise of stock options	32,400	33	32,367	-		32,400
Exercise of warrants	279,845	279	68,212	-		68,491
Preferred stock dividend accrued	-	-	-	(175,663)		(175,663)
Preferred stock dividends paid by issuance of shares	-	-	477,736	—	42	477,778
Conversion of preferred stock to common stock at $1.10 per share	8,146,858	8,147	(7,251)	-	(896)	-
Share-based compensation	-	-	66,971	-	20,168	87,139
Reversal of unrealized gain on short-term investments	-	-	-	-	(12,250)	(12,250)
Stock issued in connection with acquisition of Tarpan Therapeutics, Inc.	10,731,052	10,731	11,042,253	-		11,052,984
Net loss	-	-	-	(19,140,997)		(19,140,997)
Balance at December 31, 2005	60,092,697	60,093	42,751,111	(33,271,695)	987	9,540,496
Cashless exercise of warrants	27,341	27	(27)	-		-
Share-based compensation	-	-	1,675,499	-		1,675,499
Unrealized loss on short-term investments	-	-	-	-	(987)	(987)
Costs associated with private placement	-	-	(15,257)	-		(15,257)
Net loss	-	-	-	(9,695,123)		(9,695,123)
Balance at December 31, 2006	60,120,038	60,120	44,411,326	(42,966,818)	-	1,504,628

MANHATTAN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statements of Stockholders' Equity (Deficiency)

	Common stock shares	Common stock amount	Additional paid-in capital	Deficit accumulated during development stage	Other	Total stockholders' equity (deficiency)
Common stock issued at $0.84 and $0.90 per shares, net of expenses	10,185,502	$ 10,186	$ 7,841,999	$ -	$ -	$ 7,852,185
Common stock issued to directors at $0.72 per share in satisfaction of accounts payable	27,776	28	19,972	-	-	20,000
Common stock issued to in connection with in-licensing agreement at $0.90 per share	125,000	125	112,375	-	-	112,500
Common stock issued to in connection with in-licensing agreement at $0.80 per share	150,000	150	119,850	-	-	120,000
Exercise of warrants	10,327	15	7,219	-	-	7,234
Cashless exercise of warrants	5,589	-	(6)	-	-	(6)
Share-based compensation	-	-	1,440,956	-	-	1,440,956
Warrants issued for consulting	-	-	83,670	-	-	83,670
Net loss	-	-	-	(12,032,252)		(12,032,252)
Balance at December 31, 2007	70,624,232	70,624	54,037,361	(54,999,070)	-	(891,085)
Sale of warrant	-	-	150,000	-	-	150,000
Share-based compensation	-	-	463,890	-	-	463,890
Warrants issued with secured 12% notes	-	-	170,128	-	-	170,128
Net loss	-	-	-	(4,268,858)	-	(4,268,858)
Balance at December 31, 2008	70,624,232	70,624	54,821,379	(59,267,928)	-	(4,375,925)
Cumulative effect of a change in accounting principle	-	-	(150,000)	127,778	-	(22,222)
Balance at January 1, 2009, as adjusted	70,624,232	70,624	54,671,379	(59,140,150)	-	(4,398,147)
Share-based compensation	-	-	353,438	-	-	353,438
Warrants issued with secured 12% notes	-	-	46,125	-	-	46,125
Warrant issued to placement agent - secured 12% notes	-	-	6,919	-	-	6,919
Net loss	-	-	-	(2,793,285)	-	(2,793,285)
Balance at December 31, 2009	70,624,232	$ 70,624	$ 55,077,861	$ (61,933,435)	$ -	$ (6,784,950)

See accompanying notes to financial statements.

MANHATTAN PHARMACEUTICALS, INC.
(A Development Stage Company)
Statements of Cash Flows

	Years Ended,		Cumulative period from August 6, 2001 (inception) to December 31,
	2009	2008	2009
Cash flows from operating activities:			
Net loss	$(2,793,285)	$(4,268,858)	$ (60,753,790)
Adjustments to reconcile net loss to net cash used in operating activities:			
Equity in losses of Hedrin JV	500,000	250,000	750,000
Share-based compensation	353,438	463,890	4,182,311
Interest and amortization of OID and issue costs on Secured 12% Notes	543,182	38,574	583,973
Change in fair value of derivative	560,065	-	430,070
Shares issued in connection with in-licensing agreement	-	-	232,500
Warrants issued to consultant	-	-	83,670
Amortization of intangible assets	-	-	145,162
Gain on sale of marketable equity securities	-	-	(76,032)
Depreciation	5,531	26,106	227,462
Non cash portion of in-process research and development charge	-	-	11,721,623
Loss on impairment and disposition of intangible assets	-	-	2,462,108
Other	-	18,327	23,917
Changes in operating assets and liabilities, net of acquisitions:			
Decrease (increase) in restricted cash	730,499	(730,499)	-
Decrease in prepaid expenses and other current assets	(49,460)	178,134	(28,934)
Decrease (increase) in other assets	13,525	35,611	(36,370)
Increase (decrease) in accounts payable	(326,896)	(737,189)	635,613
Increase (decrease) in accrued expenses	(586,398)	281,895	(252,647)
Net cash used in operating activities	(1,049,799)	(4,444,009)	(39,669,364)
Cash flows from investing activities:			
Purchase of property and equipment	-	(8,973)	(239,608)
Cash paid in connection with acquisitions	-	-	(26,031)
Net cash provided from the purchase and sale of short-term investments	-	-	435,938
Proceeds from sale of license	-	-	200,001
Net cash (used in) provided by investing activities	-	(8,973)	370,300
Cash flows from financing activities:			
Proceeds from the Hedrin JV agreement	500,000	2,699,176	3,199,176
Sale of warrant	-	150,000	150,000
Proceeds from sale of (repayment of) Secured 10% Notes	(70,000)	70,000	-
Proceeds from sale of Secured 12% Notes	340,270	990,143	1,345,413
Proceeds from sale of 8% Note	27,000	-	27,000
Proceeds from sale of Convertible 12% Notes	164,502	-	164,502
Repayments of notes payable to stockholders	-	-	(884,902)
Proceeds (costs) related to sale of common stock, net	-	-	25,896,262
Proceeds from sale of preferred stock, net	-	-	9,046,176
Proceeds from exercise of warrants and stock options	-	-	138,219
Other, net	-	-	235,214
Net cash provided by financing activities	961,772	3,909,319	39,317,060
Net (decrease) increase in cash and cash equivalents	(88,027)	(543,663)	17,996
Cash and cash equivalents at beginning of period	106,023	649,686	-
Cash and cash equivalents at end of period	$ 17,996	$ 106,023	$ 17,996
Supplemental disclosure of cash flow information:			
Interest paid	$ 5,397	$ 475	$ 31,430
Supplemental disclosure of noncash investing and financing activities:			
Investment in Hedrin JV	$ 500,000	$ 250,000	$ 250,000
Warrants issued with Secured 12% Notes	53,044	170,128	223,172
Warrants issued with 12% Notes	27,390	-	27,390
Note issued to settle accrued expenses	211,900	-	211,900
Common stock issued in satisfaction of accounts payable	-	-	770,000
Imputed and accrued preferred stock dividend	-	-	1,179,645
Conversion of preferred stock to common stock	-	-	1,067
Preferred stock dividends paid by issuance of shares	-	-	759,134

Issuance of common stock for acquisitions	-	-	13,389,226
Issuance of common stock in connection with in-licensing agreement	-	-	232,500
Marketable equity securities received in connection with sale of license	-	-	359,907
Warrants issued to consultant	-	-	83,670
Net liabilities assumed over assets acquired in business combination	-	-	(675,416)
Cashless exercise of warrants	-	-	33

See accompanying notes to financial statements.

(1) Merger and Nature of Operations

2003 Reverse Merger

On February 21, 2003, the Company (formerly known as "Atlantic Technology Ventures, Inc.") completed a reverse acquisition of privately held Manhattan Research Development, Inc. ("Manhattan Research") (formerly Manhattan Pharmaceuticals, Inc.), a Delaware corporation. At the effective time of the merger, the outstanding shares of common stock of Manhattan Research automatically converted into shares of the Company's common stock representing 80 percent of the Company's outstanding voting stock after giving effect to the merger. Since the stockholders of Manhattan Research received the majority of the voting shares of the Company, the merger was accounted for as a reverse acquisition whereby Manhattan Research was the accounting acquirer (legal acquiree) and the Company was the accounting acquiree (legal acquirer) under the purchase method of accounting. In connection with the merger, the Company changed its name from "Atlantic Technology Ventures, Inc." to "Manhattan Pharmaceuticals, Inc." The results of the combined operations have been included in the Company's financial statements since February 2003.

As described above, the Company resulted from the February 21, 2003 reverse merger between Atlantic Technology Ventures, Inc. ("Atlantic"), which was incorporated on May 18, 1993, and privately-held Manhattan Research Development, Inc., incorporated on August 6, 2001. The Company was incorporated in the State of Delaware. In connection with the merger, the former stockholders of Manhattan Research received a number of shares of Atlantic's common stock so that following the merger they collectively owned 80 percent of the outstanding shares. Upon completion of the merger, Atlantic changed its name to Manhattan Pharmaceuticals, Inc. and thereafter adopted the business of Manhattan Research.

The Company is a biopharmaceutical company focused on developing and commercializing innovative pharmaceutical therapies for underserved patient populations. The Company acquires rights to these technologies by licensing or otherwise acquiring an ownership interest, funding their research and development and eventually either bringing the technologies to market or out-licensing. We currently have two product candidates in development: Hedrin™, a novel, non-insecticide treatment of pediculitis (head lice) which is being developed by the Hedrin JV (see note 6) and a topical product for the treatment of psoriasis. During 2009, the Company discontinued development of PTH (1-34), Altoderm and Altolyn.

Acquisition of Tarpan Therapeutics, Inc.

In April 2005, the Company merged with Tarpan Therapeutics, Inc., a Delaware corporation ("Tarpan"), and Tarpan Acquisition Corp., a Delaware corporation. The acquisition of Tarpan has been accounted for by the Company under the purchase method of accounting. Under the purchase method, assets acquired and liabilities assumed by the Company are recorded at their estimated fair values and the results of operations of the acquired company are consolidated with those of the Company from the date of acquisition. The excess purchase price paid by the Company to acquire the net assets of Tarpan was allocated to acquired in-process research and development totaling $11,887,807. As required by the purchase method of accounting, the Company recorded a charge in its consolidated statement of operations for the year ended December 31, 2005 for the in-process research and development.

(2) Liquidity and Basis of Presentation

Liquidity

The Company incurred a net loss of $2,793,285 and negative cash flows from operating activities of $1,049,799 for the year ended December 31, 2009 and a net loss of $4,268,858 and negative cash flows from operating activities of $4,444,009 for the year ended December 31, 2008. The net loss applicable to common shares from date of inception, August 6, 2001, to December 31, 2009 amounts to $61,933,435.

The Company received approximately $1.8 million in February 2008 and approximately $0.9 million in June 2008 from a joint venture agreement. This joint venture agreement is more fully described in Note 8. The Company also received $70,000 in Secured 10% Notes in September 2008 which was repaid in full in February 2009. The Company received $1.0 million in November and December 2008 from the sale of Secured 12% Notes.

The Company received approximately $0.3 million in February 2009 from the final closing of the sale of Secured 12% Notes, approximately $0.5 million in February 2009 from a joint venture agreement, approximately $0.2 million from the sale of a Convertible 12% Note and approximately $27,000 from Ariston Pharmaceuticals, Inc. in exchange for a note in December 2009. In addition, the Company issued a $0.2 million non-interest bearing note in connection with the Swiss Pharma Settlement. These notes are more fully described in Notes 9, 10, 11 and 12.

Management believes that the Company will continue to incur net losses through at least December 31, 2010 and for the foreseeable future thereafter. Based on the resources of the Company available at December 31, 2009 and the net proceeds of $2.2 received in March 2010 from the sale of common stock and warrants, management believes that the Company has sufficient capital to fund its operations through 2010. Management believes that the Company will need additional equity or debt financing or will need to generate positive cash flow from a joint venture agreement (see Note 6) or generate revenues through licensing of its products or entering into strategic alliances to be able to sustain its operations into 2010. Furthermore, we will need additional financing thereafter to complete development and commercialization of our products. There can be no assurances that we can successfully complete development and commercialization of our products.

The Company’s continued operations will depend on its ability to raise additional funds through various potential sources such as equity and debt financing, collaborative agreements, strategic alliances and its ability to realize the full potential of its technology in development. Additional funds may not become available on acceptable terms, and there can be no assurance that any additional funding that the Company does obtain will be sufficient to meet the Company’s needs in the long-term.

These matters raise substantial doubt about the Company’s ability to continue as a going concern. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

(3) Summary of Significant Accounting Policies

Basis of Presentation

The Company has not generated any revenue from its operations and, accordingly, the financial statements have been prepared in accordance with the provisions of accounting and reporting for Development Stage Enterprises.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Research and Development

All research and development costs are expensed as incurred and include costs of consultants who conduct research and development on behalf of the Company and its subsidiaries. Costs related to the acquisition of technology rights and patents for which development work is still in process are expensed as incurred and considered a component of research and development costs.

The Company often contracts with third parties to facilitate, coordinate and perform agreed-upon research and development of a new drug. To ensure that research and development costs are expensed as incurred, the Company records monthly accruals for clinical trials and preclinical testing costs based on the work performed under the contracts.

These contracts typically call for the payment of fees for services at the initiation of the contract and/or upon the achievement of certain milestones. This method of payment often does not match the related expense recognition resulting in either a prepayment, when the amounts paid are greater than the related research and development costs expensed, or an accrued liability, when the amounts paid are less than the related research and development costs expensed.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between financial statement carrying amounts of existing assets and liabilities, and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Computation of Net Loss per Common Share

Basic net loss per common share is calculated by dividing net loss applicable to common shares by the weighted-average number of common shares outstanding for the period. Diluted net loss per common share is the same as basic net loss per common share, since potentially dilutive securities from stock options, stock warrants and convertible preferred stock would have an antidilutive effect because the Company incurred a net loss during each period presented. The amounts of potentially dilutive securities excluded from the calculation were 99,159,628 and 80,068,144 shares at December 31, 2009 and 2008, respectively. These amounts do not include the 55,555,555 shares issuable upon the exercise of the put or call rights issued in connection with the Hedrin JV (see Note 6) which were subject to anti-dilution rights upon the issuance of warrants with the Secured 12% Notes (see Note 8).

Share-Based Compensation

The Company has stockholder-approved stock incentive plans for employees, directors, officers and consultants. Prior to January 1, 2006, the Company accounted for the employee, director and officer plans using the intrinsic value method. Effective January 1, 2006, the Company adopted the share-based payment method for employee options using the modified prospective transition method. This new method of accounting for stock options eliminated the option to use the intrinsic value method and required the Company to expense the fair value of all employee options over the vesting period. Under the modified prospective transition method, the Company recognized compensation cost for the years ended December 31, 2009 and 2008 which includes a) period compensation cost related to share-based payments granted prior to, but not yet vested, as of January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions; and b) period compensation cost related to share-based payments granted on or after January 1, 2006, based on the grant date fair value estimated in accordance with the new accounting methodology. In accordance with the modified prospective method, the Company has not restated prior period results.

The Company recognizes compensation expense related to stock option grants on a straight-line basis over the vesting period. For the years ended December 31, 2009 and 2008, the Company recognized share-based employee compensation cost of $353,438 and $463,890, respectively. The Company did not capitalize any share-based compensation cost.

Options granted to consultants and other non-employees are recorded at fair value at the date of grant and subsequently adjusted to fair value at the end of each reporting period until such options vest, and the fair value of the options, as adjusted, is amortized to consulting expense over the related vesting period. As a result of adjusting consultant and other non-employee options to fair value as of December 31, 2009 and 2008, respectively, net of amortization, the Company recognized an increase to general and administrative and research and development expenses of $1,725 for the year ended December 31, 2009 and an increase to general and administrative and research and development expenses of $1,579 for the year ended December 31, 2008. The Company has allocated share-based compensation costs to general and administrative and research and development expenses as follows:

	2009	2008
General and administrative expense:		
Share-based employee compensation cost	$ 351,713	$ 341,706
Share-based consultant and non-employee cost	172	158
	351,885	341,864
Research and development expense		
Share-based employee compensation cost	-	120,605
Share-based consultant and non-employee cost	1,553	1,421
	1,553	122,026
Total share-based compensation	**$ 353,438**	**$ 463,890**

To compute compensation expense in 2009 and 2008 the Company estimated the fair value of each option award on the date of grant using the Black-Scholes model. The Company based the expected volatility assumption on a volatility index of peer companies as the Company did not have a sufficient number of years of historical volatility of its common stock. The expected term of options granted represents the period of time that options are expected to be outstanding. The Company estimated the expected term of stock options by the simplified method. The expected forfeiture rates are based on the historical employee forfeiture experiences. To determine the risk-free interest rate, the Company utilized the U.S. Treasury yield curve in effect at the time of grant with a term consistent with the expected term of the Company's awards. The Company has not declared a dividend on its common stock since its inception and has no intentions of declaring a dividend in the foreseeable future and therefore used a dividend yield of zero.

The following table shows the weighted average assumptions the Company used to develop the fair value estimates for the determination of the compensation charges in 2009 and 2008:

	2009	2008
Expected volatility	94%	92.0%
Dividend yield	-	-
Expected term (in years)	6.5	5 - 10
Risk-free interest rate	2.63	2.81

The Company has shareholder-approved incentive stock option plans for employees under which it has granted non-qualified and incentive stock options. In December 2003, the Company established the 2003 Stock Option Plan (the "2003 Plan"), which provided for the granting of up to 5,400,000 options to officers, directors, employees and consultants for the purchase of stock. In August 2005, the Company increased the number of shares of common stock reserved for issuance under the 2003 Plan by 2,000,000 shares. In May 2007, the Company increased the number of shares of common stock reserved for issuance under the 2003 Plan by 3,000,000 shares. At December 31, 2009, 10,400,000 shares were authorized for issuance. The options have a maximum term of 10 years and vest over a period determined by the Company's Board of Directors (generally 3 years) and are issued at an exercise price equal to or greater than the fair market value of the shares at the date of grant. The 2003 Plan expires on December 10, 2013 or when all options have been granted, whichever is sooner. At December 31, 2009, options to purchase 6,322,696 shares were outstanding, 27,776 shares of common stock were issued and there were 4,049,528 shares reserved for future grants under the 2003 Plan.

In July 1995, the Company established the 1995 Stock Option Plan (the "1995 Plan"), which provided for the granting of options to purchase up to 130,000 shares of the Company's common stock to officers, directors, employees and consultants. The 1995 Plan was amended several times to increase the number of shares reserved for stock option grants. In June 2005 the 1995 Plan expired and no further options can be granted. At December 31, 2009, options to purchase 1,137,240 shares were outstanding and no shares were reserved for future stock option grants under the 1995 Plan.

Financial Instruments

At December 31, 2009 and 2008, the fair values of cash and cash equivalents, accounts payable and the secured 12% notes payable approximate their carrying values. At December 31, 2009 the fair value of the convertible 12% note does not approximate its carrying value as a portion of the fair value is reflected as a component of derivative liability.

Cash and Cash Equivalents

Cash equivalents consist of cash or short term investments with original maturities at the time of purchase of three months or less.

Property and Equipment

Property and equipment are stated at cost. Depreciation is provided using the straight-line method over estimated useful lives. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts, and any resulting gain or loss is recognized in operations for the period. Amortization of leasehold improvements is calculated using the straight-line method over the remaining term of the lease or the life of the asset, whichever is shorter. The cost of repairs and maintenance is charged to operations as incurred; significant renewals and improvements are capitalized.

Equity in Joint Venture

The Company accounts for its investment in joint venture (See Note 6) using the equity method of accounting. Under the equity method, the Company records its pro-rata share of joint venture income or losses and adjusts the basis of its investment accordingly.

New Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") issued the FASB Accounting Standards Codification ("Codification") as the single source of authoritative U.S. generally accepted accounting principles ("U.S. GAAP") recognized by the FASB to be applied by nongovernmental entities. Rules and interpretive releases of the SEC under authority of federal securities laws are also sources of authoritative U.S. GAAP for SEC registrants. The Codification is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The Codification will supersede all existing non-SEC accounting and reporting standards. All other nongrandfathered non-SEC accounting literature not included in the Codification will become nonauthoritative. The FASB will not issue new standards in the form of Statements, FASB Staff Positions, or Emerging Issues Task Force Abstracts. Instead, the FASB will issue Accounting Standards Updates, which will serve only to: (a) update the Codification; (b) provide background information about the guidance; and (c) provide the bases for conclusions on the change(s) in the Codification.

In December 2007, the FASB issued a statement that requires all entities to report noncontrolling (minority) interests in subsidiaries as equity in the consolidated financial statements. This statement establishes a single method of accounting for changes in a parent's ownership interest in a subsidiary that do not result in deconsolidation and expands disclosures in the consolidated financial statements. This statement was effective for fiscal years beginning after December 15, 2008 and interim periods within those fiscal years. The adoption of this statement did not have any impact on the Company's financial statements.

In February 2008, the FASB issued two Staff Positions as well as other accounting pronouncements that address fair value measurements on lease classification. The adoption of these pronouncements did not have a material impact on the Company's financial statements.

In March 2008, the FASB issued a pronouncement which requires expanded disclosures about an entity's derivative instruments and hedging activities. This pronouncement requires qualitative disclosures about objectives and strategies for using derivatives, quantitative disclosures about fair value amounts of and gains and losses on derivative instruments, and disclosures about credit-risk-related contingent features in derivative instruments. This pronouncement was effective for the Company as of January 1, 2009, and its adoption did not have any impact on the Company's financial statements.

In June 2008, the FASB ratified a pronouncement which provides that an entity should use a two step approach to evaluate whether an equity-linked financial instrument (or embedded feature) is indexed to its own stock, including evaluating the instrument's contingent exercise and settlement provisions. It also clarifies the impact of foreign currency denominated strike prices and market-based employee stock option valuation instruments on the evaluation. This statement was effective for fiscal years beginning after December 15, 2008. The adoption of this statement had a significant impact on the Company's financial statements (see Note 13 to our financial statements for the period ended December 31, 2009).

In April 2009, the FASB issued a pronouncement which provides guidance on determining when there has been a significant decrease in the volume and level of activity for an asset or liability, when a transaction is not orderly, and how that information must be incorporated into a fair value measurement. This pronouncement also requires expanded disclosures on valuation techniques and inputs and specifies the level of aggregation required for all quantitative disclosures. The provisions of this pronouncement were effective for the Company's quarter ending June 30, 2009. The adoption of this pronouncement did not have any impact on the Company's financial statements.

In April 2009, the FASB issued several pronouncements which makes the guidance on other-than-temporary impairments of debt securities more operational and requires additional disclosures when a company records an other-than-temporary impairment. These pronouncements were effective for interim and annual reporting periods ending after June 15, 2009. The Company adopted these principles in the second quarter of 2009, which did not have any impact on the Company's financial statements.

In April 2009, the FASB issued several statements which require companies to disclose in interim financial statements the fair value of financial instruments. However, companies are not required to provide in interim periods the disclosures about the concentration of credit risk of all financial instruments that are currently required in annual financial statements. The fair-value information disclosed in the footnotes must be presented together with the related carrying amount, making it clear whether the fair value and carrying amount represent assets or liabilities and how the carrying amount relates to what is reported in the balance sheet. In addition, the companies are required to disclose the method or methods and significant assumptions used to estimate the fair value of financial instruments and a discussion of changes, if any, in the method or methods and significant assumptions during the period. This statement shall be applied prospectively and was effective for interim and annual periods ending after June 15, 2009. To the extent relevant, the Company adopted the disclosure requirements of this pronouncement for the quarter ended June 30, 2009. The adoption of these statements did not have a material impact on the Company's financial statements

In May 2009, the FASB issued a statement which sets forth the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date in its financial statements, and the disclosures that an entity should make about events or transactions that occurred after the balance sheet date. This statement was effective for interim or annual periods ending after June 15, 2009, and the Company adopted the provisions of this statement for the quarter ended June 30, 2009. The adoption of this statement did not have a material impact on the Company's financial statements. The Company has evaluated all events or transactions that occurred after December 31, 2009 up through the date we issued these financial statements, and we have disclosed all events or transactions that have a material impact on the Company's financial statements (see Note 18).

In August 2009, the FASB issued a new pronouncement to provide clarification on measuring liabilities at fair value when a quoted price in an active market is not available. In particular, this pronouncement specifies that a valuation technique should be applied that uses either the quote of the liability when traded as an asset, the quoted prices for similar liabilities when traded as assets, or another valuation technique consistent with existing fair value measurement guidance. This statement is prospectively effective for financial statements issued for interim or annual periods ending after October 1, 2009. The adoption of this statement at December 31, 2009 did not impact the Company's results of operations or financial condition.

(4) Property and Equipment

Property and equipment consists of the following at December 31:

	2009	2008
Property and equipment	$ 35,905	$ 35,905
Less accumulated depreciation	(32,364)	(26,833)
Net property and equipment	$ 3,541	$ 9,072

(5) Stockholders' Equity

As described in Note 1 the Company completed a reverse acquisition of privately held Manhattan Research Development, Inc. on February 21, 2003. In July 2003, the Board of Directors adopted a resolution authorizing an amendment to the certificate of incorporation providing for a 1-for-5 combination of the Company's common stock. The resolution approving the 1-for-5 combination was thereafter consented to in writing by holders of a majority of the Company's outstanding common stock and became effective in September 2003. Accordingly, all share and per share information in these financial statements has been restated to retroactively reflect the 1-for-5 combination and the effects of the Reverse Merger.

2001

During 2001, the Company issued 10,167,741 shares of its common stock to investors for subscriptions receivable of $4,000 or $0.0004 per share. During 2002, the Company received the $4,000 subscription receivable.

2002

During 2002, the Company issued 2,541,935 shares of its common stock to Oleoyl-estrone Developments, S.L. ("OED") in conjunction with a license agreement (the OED License Agreement"). We valued these shares at their then estimated fair value of $1,000.

During 2002, the Company issued options to purchase 1,292,294 shares of its common stock in conjunction with several consulting agreements. The fair value of these options was $60,589. The Company expensed $22,721 in 2002 and $37,868 in 2003.

During 2002 and 2003, the Company completed two private placements. During 2002, the Company issued 3,043,332 shares of its common stock at $0.63 per share and warrants to purchase 304,333 of its common stock in a private placement. After deducting commissions and other expenses relating to the private placement, the Company received net proceeds of $1,704,318.

2003

During 2003, the Company issued an additional 1,321,806 shares of its common stock at $0.63 per share and warrants to purchase 132,181 shares of its common stock. After deducting commissions and other expenses relating to the private placement, the Company received net proceeds of $743,691. In connection with these private placements, the Company issued to the placement agent warrants to purchase 1,658,753 shares of its common stock.

As described in Note 1, during 2003, the Company completed a reverse acquisition. The Company issued 6,287,582 shares of its common stock with a value of $2,336,241 in the reverse acquisition.

In November 2003, the Company issued 1,000,000 shares of its newly-designated Series A Convertible Preferred Stock (the "Convertible Preferred") at a price of $10 per share in a private placement. After deducting commissions and other expenses relating to the private placement, the Company received net proceeds of $9,046,176. Each share of Convertible Preferred was convertible at the holder's election into shares of the Company's common stock at a conversion price of $1.10 per share. The conversion price of the Convertible Preferred was less than the market value of the Company's common stock on the date of issuance. Accordingly for the year ended December 31, 2003 the Company recorded a separate charge to deficit accumulated during development stage for the beneficial conversion feature associated with the issuance of Convertible Preferred of $418,182. The Convertible Preferred had a payment-in-kind annual dividend of five percent. Maxim Group, LLC of New York, together with Paramount Capital, Inc., a related party, acted as the placement agents in connection with the private placement.

2004

During 2004, the Company issued 3,368,952 shares of its common stock at a price of $1.10 per share in a private placement. After deducting commissions and other expenses relating to the private placement, the Company received net proceeds of $3,361,718. In connection with the common stock private placement and the Convertible Preferred private placement, the Company issued to the placement agents a warrant to purchase 1,235,589 shares of its common stock.

During 2004, the Company recorded a dividend on the Convertible Preferred of $585,799. 24,901 shares of Convertible Preferred were issued in payment of $282,388 of this in-kind dividend. Also during 2004, 170,528 shares of Convertible Preferred were converted into 1,550,239 shares of the Company's common stock at $1.10 per share.

During 2004, the Company issued 27,600 shares of common stock upon the exercise of stock options.

During 2004, the Company issued warrants to purchase 110,000 shares of its common stock in conjunction with three consulting agreements. The fair value of these warrants was $120,968. The Company expensed $100,800 in 2004 and $20,168 in 2005.

2005

In August 2005, the Company issued 11,917,680 shares of its common stock and warrants to purchase 2,383,508 shares of its common stock in a private placement at $1.11 and $1.15 per share. After deducting commissions and other expenses relating to the private placement the Company received net proceeds of $12,250,209. Paramount BioCapital, Inc. ("Paramount"), an affiliate of a significant stockholder of the Company, acted as placement agent and was paid cash commissions and expenses of $967,968 of which $121,625 was paid to certain selected dealers engaged by Paramount in the private placement. The Company also issued warrants to purchase 595,449 shares of common stock to Paramount and certain select dealers, of which Paramount received warrants to purchase 517,184 common shares. Timothy McInerney and Dr. Michael Weiser, each a director of the Company, were employees of Paramount BioCapital, Inc. at the time of the transaction.

During 2005, the Company recorded a dividend on the Convertible Preferred of $175,663. 41,781 shares of Convertible Preferred were issued in payment of this $175,663 in-kind dividend and the unpaid portion of the 2004 in-kind dividend, $303,411. Also during 2005, the remaining 896,154 shares of Convertible preferred were converted into 8,146,858 shares of the Company's common stock.

During 2005, the Company issued 675,675 shares of its common stock at $1.11 per share and warrants to purchase 135,135 shares of its common stock to Cato BioVentures, an affiliate of Cato Research, Inc., in exchange for satisfaction of $750,000 of accounts payable owed by the Company to Cato Research, Inc. Since the value of the shares and warrants issued was approximately $750,000, there is no impact on the statement of operations for this transaction.

During 2005, the Company issued 312,245 shares of common stock upon the exercise of stock options and warrants.

As described in Note 1, in April 2005, the Company completed the Merger with Tarpan. In accordance with the Agreement, the stockholders of Tarpan received 10,731,052 shares of the Company's common stock with a value of $11,052,984.

2006

During 2006, the Company issued 27,341 shares of common stock upon the exercise of warrants.

2007

On March 30, 2007, the Company entered into a series of subscription agreements with various institutional and other accredited investors for the issuance and sale in a private placement of an aggregate of 10,185,502 shares of its common stock for total net proceeds of approximately $7.85 million, after deducting commissions and other costs of the transaction. Of the total amount of shares issued, 10,129,947 were sold at a per share price of $0.84, and an additional 55,555 shares were sold to an entity affiliated with a director of the Company, at a per share price of $0.90, the closing sale price of the common stock on March 29, 2007. Pursuant to the subscription agreements, the Company also issued to the investors 5-year warrants to purchase an aggregate of 3,564,897 shares of common stock at an exercise price of $1.00 per share. The warrants are exercisable during the period commencing September 30, 2007 and ending March 30, 2012. Gross and net proceeds from the private placement were $8,559,155 and $7,852,185, respectively.

Pursuant to these subscription agreements the Company filed a registration statement on Form S-3 covering the resale of the shares issued in the private placement, including the shares issuable upon exercise of the investor warrants and the placement agent warrants, with the Securities and Exchange Commission on May 9, 2007, which was declared effective by the Securities and Exchange Commission on May 18, 2007.

The Company engaged Paramount, an affiliate of a significant stockholder of the Company, as its placement agent in connection with the private placement. In consideration for its services, the Company paid aggregate cash commissions of approximately $600,000 and issued to Paramount a 5-year warrant to purchase an aggregate of 509,275 shares at an exercise price of $1.00 per share.

2008

During 2008, the Company issued warrants to purchase 140,000 shares of its common stock to directors, officers and an employee in conjunction with the secured 10% notes (see Note 8).

During 2008, the Company issued a put for the issuance of 55.6 million shares of its common stock and a warrant to purchase 11.1 million shares of its common stock in conjunction with a joint venture transaction (see Notes 6 and 9).

During 2008, the Company issued warrants to purchase 50.4 million shares of its common stock to the investors and the placement agent in conjunction with the sale of the secured 12% notes (see Note 10).

2009

During 2009, the Company issued warrants to purchase 15.7 million shares of its common stock to the investors and the placement agent in conjunction with the sale of the secured 12% notes (see Note 9).

During 2009, the Company issued warrants to purchase 2.4 million shares of its common stock to the investors and the placement agent in conjunction with the sale of the convertible 12% notes (see Note 12).

(6) Joint Venture

In February 2008, the Company and Nordic Biotech Advisors ApS through its investment fund Nordic Biotech Venture Fund II K/S ("Nordic") entered into a 50/50 joint venture agreement (the "Hedrin JV Agreement") to develop and commercialize the Company's North American rights (under license) to its Hedrin product.

Pursuant to the Hedrin JV Agreement, Nordic formed a new Danish limited partnership, Hedrin Pharmaceuticals K/S, (the "Hedrin JV") and provided it with initial funding of $2.5 million and the Company assigned and transferred its North American rights in Hedrin to the Hedrin JV in return for a $2.0 million cash payment from the Hedrin JV and equity in the Hedrin JV representing 50% of the nominal equity interests in the Hedrin JV. At closing the Company recognized an investment in the Hedrin JV of $250,000 and an exchange obligation of $2,054,630. The exchange obligation represents the Company's obligation to Nordic to issue the Company's common stock in exchange for all or a portion of Nordic's equity interest in the Hedrin JV upon the exercise by Nordic of the put issued to Nordic in the Hedrin JV Agreement transaction. The put is described below.

The original terms of the Hedrin JV Agreement also provided that should the Hedrin JV be successful in achieving a payment milestone, namely that by September 30, 2008, the FDA determines to treat Hedrin as a medical device, Nordic will purchase an additional $2.5 million of equity in the Hedrin JV, whereupon the Hedrin JV will pay the Company an additional $1.5 million in cash and issue additional equity in the JV valued at $2.5 million, thereby maintaining the Company's 50% ownership interest in the Hedrin JV. These terms have been amended as described below.

In June 2008, the Hedrin JV Agreement was amended (the "Hedrin JV Amended Agreement"). Under the amended terms Nordic invested an additional $1.0 million, for a total of $3.5 million, in the Hedrin JV and made an advance of $250,000 to the Hedrin JV and the Hedrin JV made an additional $1.0 million payment, for a total of $3.0 million, to the Company. The Hedrin JV also distributed additional ownership equity sufficient for each of the Company and Nordic to maintain their ownership interest at 50%. The FDA classified Hedrin as a Class III medical device in February 2009. Under the amended terms, upon attaining this classification of Hedrin by the FDA, Nordic invested an additional $1.25 million, for a total investment of $5 million, into the Hedrin JV, the Hedrin JV paid an additional $0.5 million, for a total of $3.5 million, to the Company and the $250,000 that Nordic advanced to the Hedrin JV in June became an equity investment in the Hedrin JV by Nordic. The Hedrin JV was obligated to issue to the Company and Nordic additional ownership interest in the Hedrin JV, thereby maintaining each of the Company's and Nordic's 50% ownership interest in the Hedrin JV.

In February 2009, the Company's exchange obligation increased by $1,000,000 and the Company's investment in the Hedrin JV increased by $500,000 as a result of the investment by Nordic of an additional $1.25 million into the Hedrin JV, the reclassification of the advance made by Nordic in June 2008 to the Hedrin JV of $250,000 into an equity interest and the payment of $500,000 by the Hedrin JV to the Company. At December 31, 2009, the Company's exchange obligation is $3,949,176.

During the years ended December 31, 2009 and 2008, the Company recognized $500,000 and $250,000, respectively, of equity in the losses of the Hedrin JV. This reduced the carrying value of its investment in the Hedrin JV to $0 at both December 31, 2009 and 2008. As of December 31, 2009, the Company's share of the losses is $553,688; equity in losses of Hedrin JV previously recognized was $250,000 leaving a $250,000 share of the cumulative losses of the Hedrin JV that was recognized by the Company at December 31, 2009, and a remaining balance of $53,688 of losses was not recognized at December 31, 2009.

Nordic has an option to put all or a portion of its equity interest in the Hedrin JV to the Company in exchange for the Company's common stock. The shares of the Company's common stock to be issued upon exercise of the put will be calculated by multiplying the percentage of Nordic's equity in the Hedrin JV that Nordic decides to put to the Company multiplied by the dollar amount of Nordic's investment in Limited Partnership divided by $0.09, as adjusted from time to time. The put option is exercisable immediately and expires at the earlier of ten years or when Nordic's distributions from the Limited Hedrin JV exceed five times the amount Nordic invested in the Hedrin JV.

The Company has an option to call all or a portion of Nordic's equity interest in the Hedrin JV in exchange for the Company's common stock. The Company cannot begin to exercise its call until the price of the Company's common stock has closed at or above $1.40 per share for 30 consecutive trading days. During the first 30 consecutive trading day period in which the Company's common stock closes at or above $1.40 per share the Company can exercise up to 25% of its call option. During the second 30 consecutive trading day period in which the Company's common stock closes at or above $1.40 per share the Company can exercise up to 50% of its call option on a cumulative basis. During the third 30 consecutive trading day period in which the Company's common stock closes at or above $1.40 per share the Company can exercise up to 75% of its call option on a cumulative basis. During the fourth 30 consecutive trading day period in which the Company's common stock closes at or above $1.40 per share the Company can exercise up to 100% of its call option on a cumulative basis. The shares of the Company's common stock to be issued upon exercise of the call will be calculated by multiplying the percentage of Nordic's equity in the Limited Partnership that the Company calls, as described above, multiplied by the dollar amount of Nordic's investment in the Hedrin JV divided by $0.09. Nordic can refuse the Company's call by either paying the Company up to $1.5 million or forfeiting all or a portion of their put, calculated on a pro rata basis for the percentage of the Nordic equity interest called by the Company.

The Hedrin JV is responsible for the development and commercialization of Hedrin for the North American market and all associated costs including clinical trials, if required, regulatory costs, patent costs, and future milestone payments owed to T&R, the licensor of Hedrin.

The Hedrin JV has engaged the Company to provide management services to the Limited Partnership in exchange for a management fee. For the years ended December 31, 2009 and 2008, the Company has recognized $333,845 and $446,806, respectively, of other income from management fees earned from the Hedrin JV which is included in the Company's statements of operations for the years ended December 31, 2009 and 2008 as a component of interest and other income.

Nordic paid to the Company a non-refundable fee of $150,000 at the closing for the right to receive a warrant covering 11.1 million shares of the Company's common stock, as adjusted due to the 12% Notes Transaction (Note 9) exercisable for $0.09 per share.. The warrant is issuable 90 days from closing, provided Nordic has not exercised all or a part of its put, as described below. The Company issued the warrant to Nordic on April 30, 2008. The per share exercise price of the warrant was initially based on the volume weighted average price of the Company's common stock for the period prior to the signing of the Hedrin JV Agreement and has been subsequently adjusted due to the 12% Notes Transaction (see Note 9). On March 2, 2010, pursuant to a private placement of its securities, the Company issued the Company's common stock and warrants with an exercise price of $0.08 per share, further adjusting the Nordic warrant, (see note 18).

The Hedrin JV's Board consists of 4 members, 2 appointed by the Company and 2 appointed by Nordic. Nordic has appointed one of the directors as chairman of the Board. The chairman has certain tie breaking powers.

Nordic has the right to nominate a person to serve on the Company's Board of Directors. Nordic has nominated a person, however, that person has declined to stand for appointment to the Company's Board of Directors.

The Company granted Nordic registration rights for the shares to be issued upon exercise of the warrant, the put or the call. The Company filed an initial registration statement on May 1, 2008. The registration statement was declared effective on October 15, 2008. On June 2, 2009, the Company filed an additional Registration Statement registering the additional 28,769,841 shares of Common Stock that may be issued to Nordic upon exercise of a put right held by Nordic as a result of Nordic's additional investment of $1,250,000 in Hedrin JV pursuant to the terms of the Partnership Agreement and as adjusted pursuant to the anti-dilution provisions of the put right (the "Put Shares") and the additional 3,968,254 shares issuable upon exercise of an outstanding warrant held by Nordic. The Securities and Exchange Commission ("SEC") has informed the Company that the Company may not register the Put Shares for resale until Nordic exercises its put right and such shares of Common Stock are outstanding. The Company believes that it has used commercially reasonable efforts to cause the registration statement to be declared effective and has satisfied its obligations under the registration rights agreement with respect to the registration of the Put Shares. The Company is awaiting input from Nordic as to whether Nordic would like the Company to continue to pursue registration of the additional 3,968,254 shares issuable upon exercise of an outstanding warrant held by Nordic which were included within the June 2009 registration statement.

The Company is required to file additional registration statements, if required, within 45 days of the date the Company first knows that such additional registration statement was required. The Company is required to use commercially reasonable efforts to cause the additional registration statements to be declared effective by the SEC within 105 calendar days from the filing date (the "Effective Date"). If the Company fails to file a registration statement on time or if a registration statement is not declared effective by the SEC within 105 days of filing the Company will be required to pay to Nordic, or its assigns, an amount in cash, as partial liquidated damages, equal to 0.5% per month of the amount invested in the Hedrin JV by Nordic until the registration statement is declared effective by the SEC. In no event shall the aggregate amount payable by the Company exceed 9% of the amount invested in the Hedrin JV by Nordic.

The profits of the Hedrin JV will be shared by the Company and Nordic in accordance with their respective equity interests in the Limited Partnership, which are currently 50% to each, except that Nordic will get a minimum distribution from the Hedrin JV equal to 6% on Hedrin sales, as adjusted for any change in Nordic's equity interest in the Limited Partnership. If the Hedrin JV realizes a profit equal to or greater than a 12% royalty on Hedrin sales, then profits will be shared by the Company and Nordic in accordance with their respective equity interests in the Limited Partnership. However, in the event of a liquidation of the Limited Partnership, Nordic's distribution in liquidation will be at least equal to the amount Nordic invested in the Hedrin JV ($5 million) plus 10% per year, less the cumulative distributions received by Nordic from the Hedrin JV. If the Hedrin JV's assets in liquidation exceed the Nordic liquidation preference amount, then any excess shall be distributed to the Company until its distribution and the Nordic liquidation preference amount are in the same ratio as the respective equity interests in the Hedrin JV and the remainder, if any, shall be distributed to Nordic and the Company in the same ratio as the respective equity interests. Further, in no event shall Nordic's distribution in liquidation be greater than assets available for distribution in liquidation.

(7) American Stock Exchange

In September 2007, the Company received notice from the staff of The American Stock Exchange, or AMEX, indicating that the Company was not in compliance with certain continued listing standards set forth in the AMEX Company Guide. Specifically, AMEX notice cited the Company's failure to comply, as of June 30, 2007, with section 1003(a)(ii) of the AMEX Company Guide as the Company had less than $4,000,000 of stockholders' equity and had losses from continuing operations and /or net losses in three or four of our most recent fiscal years and with section 1003(a)(iii) which requires the Company to maintain $6,000,000 of stockholders' equity if the Company has experienced losses from continuing operations and /or net losses in its five most recent fiscal years.

In order to maintain our AMEX listing, the Company was required to submit a plan to AMEX advising the exchange of the actions the Company has taken, or will take, that would bring the Company into compliance with all the continued listing standards by April 16, 2008. The Company submitted such a plan in October 2007. If the Company is not in compliance with the continued listing standards at the end of the plan period, or if the Company has not made progress consistent with the plan during the period, AMEX staff could have initiated delisting proceedings.

Under the terms of the Hedrin JV Agreement, the number of potentially issuable shares represented by the put and call features thereof and the warrant issuable to Nordic, would exceed 19.9% of the Company's total outstanding shares and would be issued at a price below the greater of book or market value. As a result, under AMEX regulations, the Company would not have been able to complete the transaction without first receiving either stockholder approval for the transaction, or a formal "financial viability" exception from AMEX's stockholder approval requirement. The Company estimated that obtaining stockholder approval to comply with AMEX regulations would take a minimum of 45 days to complete. The Company discussed the financial viability exception with AMEX for several weeks and had neither received the exception nor been denied the exception. The Company determined that our financial condition required the Company to complete the transaction immediately, and that the Company's financial viability depended on the completion of the Hedrin JV Agreement without further delay.

Accordingly, to maintain the Company's financial viability, on February 28, 2008, the Company announced that it had formally notified AMEX that the Company intended to voluntarily delist its common stock from AMEX. The delisting became effective on March 26, 2008.

The Company's common stock now trades on the Over the Counter Bulletin Board under the symbol "MHAN". The Company intends to maintain corporate governance, disclosure and reporting procedures consistent with applicable law.

(8) Secured 10% Notes Payable

In September 2008, Manhattan entered into a series of Secured 10% Notes (the "Secured 10% Notes") with certain of our directors, officers and an employee (the "Secured 10% Note Holders") for aggregate of $70,000. Principal and interest on the Secured 10% Notes shall be paid in cash on March 10, 2009 unless paid earlier by us. Pursuant to the Secured 10% Notes, we also issued to the Secured 10% Note Holders 5-year warrants to purchase an aggregate of 140,000 shares of our common stock at an exercise price of $0.20 per share. Manhattan granted to the Secured 10% Note Holders a continuing security interest in certain specific refunds, deposits and repayments due Manhattan and expected to be repaid to Manhattan in the next several months. At December 31, 2008 accrued and unpaid interest on the Secured 10% Notes amounted to $1,764 and is reflected in the accompanying balance sheet as of December 31, 2008 as a component of accrued expenses. The Secured 10% Notes plus interest were repaid on February 4, 2009.

(9) Secured 12% Notes Payable

On November 19, 2008, December 23, 2008 and February 3, 2009, the Company completed the first, second and final closings on a financing transaction (the "Secured 12% Notes Transaction"). The Company sold $1,725,000 of 12% senior secured notes (the "Secured 12% Notes") and issued warrants to the investors to purchase 57.5 million shares of the Company's common stock at $0.09 per share. The warrants expire on December 31, 2013. Net proceeds of $1.4 million were realized from the three closings. In addition, $78,000 of issuance costs were paid outside of the closings. Per the terms of the 12% Notes Transaction the net proceeds were paid into a deposit account (the "Deposit Account") and are to be paid out to the Company in monthly installments of $113,300 retroactive to October 1, 2008 and a one-time payment of $200,000. Per the terms of the 12% Notes Transaction the monthly installments are to be used exclusively to fund the current operating expenses of the Company and the one-time payment was to be used for trade payables incurred prior to October 1, 2008. The Company received $876,700 of such monthly installments and the one time payment of $200,000 during the year ended December 31, 2009. There was no remaining balance in the Deposit Account at December 31, 2009.

National Securities Corporation ("National") was the placement agent for the 12% Notes Transaction. National's compensation for acting as placement agent is a cash fee of 10% of the gross proceeds received, a non-accountable expense allowance of 1.5% of the gross proceeds, reimbursement of certain expenses and a warrant to purchase such number of shares of the Company's common stock equal to 15% of the shares underlying the warrants issued to the investors. The Company paid National a total of $202,000 in placement agent fees, a non-accountable expense allowance and reimbursement of certain expenses, of which $47,000 was paid during the year ended December 31, 2009. In addition, the Company issued warrants to purchase 8.6 million shares of the Company's common stock at $0.09 per share. These warrants were valued at $29,110 and are a component of Secured 12% notes payable issue costs. The warrants expire on December 31, 2013.

The Secured 12% Notes mature two years after issuance. Interest on the Secured 12% Notes is compounded quarterly and payable at maturity. At December 31, 2009 and 2008, accrued and unpaid interest on the Secured 12% Notes amounted to approximately $229,000 and $15,000, and is reflected in the accompanying balance sheets at December 31, 2009 and 2008, respectively, as interest payable on secured 12% notes payable. The Secured 12% Notes are secured by a pledge of all of the Company's assets except for its investment in the Hedrin JV. In addition, to provide additional security for the Company's obligations under the notes, the Company entered into a default agreement, which provides that upon an event of default under the notes, the Company shall, at the request of the holders of the notes, use reasonable commercial efforts to either (i) sell a part or all of the Company's interests in the Hedrin joint venture or (ii) transfer all or part of the Company's interest in the Hedrin JV to the holders of the notes, as necessary, in order to fulfill the Company's obligations under the notes, to the extent required and to the extent permitted by the applicable Hedrin joint venture agreements.

In connection with the private placement, the Company, the placement agent and the investors entered into a registration rights agreement. Pursuant to the registration rights agreement, we agreed to file a registration statement to register the resale of the shares of our common stock issuable upon exercise of the warrants issued to the investors in the private placement, within 20 days of the final closing date and to cause the registration statement to be declared effective within 90 days (or 120 days upon full review by the Securities and Exchange Commission). During the year ended December 31, 2009 we filed the registration statement, received a comment letter from the SEC and responded to the comment letter from the SEC. The registration statement was declared effective on April 17, 2009.

The issuance to the investors of warrants to purchase shares of the Company's common stock at $0.09 per share changes the number of shares represented by the Nordic Put and the number of shares and exercise price of the Nordic Warrant. The Nordic Put and Nordic Warrant were issued at a value of $0.14 per share and were issued with anti-dilution rights. The issuance of any securities at a value of less than $0.14 per share activates Nordic's anti-dilution rights. As a result of this transaction the exercise price of the Nordic Put and the Nordic Warrant were reduced to a price of $0.09 per share. The following table shows the effect of Nordic's anti-dilution rights.

	Shares Issuable Upon Exercise of Nordic's Put	Shares Issuable Upon Exercise of Nordic's Warrant	Total Shares Issuable Upon Exercise of Nordic's Put and Warrant
Before the 12% Notes Transaction	35,714,287	7,142,857	42,857,144
Antidilution shares	19,841,269	3,968,254	23,809,523
After the 12% Notes Transaction	55,555,556	11,111,111	66,666,667

An equity transaction completed in March 2010 had a further anti-dilutive effect on the Nordic Put and Warrant (see Note 18).

The Company incurred a total of approximately $424,000 of costs in the issuance of the $1,725,000 of Secured 12% Notes sold in 2008 and 2009. These costs were capitalized and are being amortized over the life of the Secured 12% Notes into interest expense. During the years ended December 31, 2009 and 2008, the amount amortized into interest expense was approximately $206,000 and $16,000, respectively. The remaining unamortized balance of approximately $201,000 and $331,000 is reflected in the accompanying balance sheets as of December 31, 2009 and 2008, respectively, as Secured 12% Notes payable issue costs.

The Company recognized an original issue discount (the "OID") of approximately $194,000 on the issuance of the Secured 12% Notes sold for the value of the warrants issued to the investors. The OID is being amortized over the life of the Secured 12% Notes into interest expense. During the years ended December 31, 2009 and 2008 the amount amortized into interest expense was approximately $94,000 and $7,000, respectively. The remaining unamortized balance of approximately $93,000 and $141,000 has been netted against the face amount of the Secured 12% Notes in the accompanying balance sheets as of December 31, 2009 and 2008, respectively. As per the terms of the 12% Notes Transaction the Company's officers agreed to certain modifications of their employment agreements.

(10) 8% Note Payable

On December 21, 2009, the Company entered into a Future Advance Promissory Note (the "8% Note") with Ariston under which the Company may withdraw up to $67,000. Principal and interest accrued at 8% shall be due and payable to Ariston on February 10, 2010. As of December 31, 2009, the Company has withdrawn $27,000 from Ariston subject to the terms of the 8% Note, and is included in the accompanying balance sheet as of December 31, 2009, as a current liability, 8% note payable.

(11) Non-interest Bearing Note Payable

On October 27, 2009, the Company entered into a Settlement Agreement and Mutual Release with Swiss Pharma Contract LTD ("Swiss Pharma") pursuant to which the Company agreed to pay Swiss Pharma $200,000 and issue to Swiss Pharma an interest free promissory note in the principal amount of $250,000 in full satisfaction of the September 5, 2008 arbitration award. The amount of the Arbitration award was $683,027 at September 30, 2009 and was included as a component of accrued expenses.

In connection with the non-interest bearing note, the Company recognized an original issue discount ("OID") of $40,000 of imputed interest on the note, which is being amortized into interest expense on a straight line basis over the two-year term of the note. For the year ended December 31, 2009, the Company amortized $1,900 of the OID into interest expense. The remaining unamortized balance of $38,100 has been netted against the face amount of the non-interest bearing note payable in the accompanying balance sheets as of December 31, 2009.

(12) Convertible 12% Note Payable

In conjunction with the Settlement Agreement and Mutual Release with Swiss Pharma described above, on October 28, 2009, the Company entered into a Subscription Agreement (the "Subscription Agreement") pursuant to which it sold a 12% Original Issue Discount Senior Subordinated Convertible Debenture with a stated value of $400,000 (the "Convertible 12% Note") and a warrant to purchase 2,222,222 shares of the Company's common stock, par value $.001 per share for a purchase price of $200,000. The Convertible 12% Note is convertible into shares of Common Stock at an initial conversion price of $0.09 per share, subject to adjustment, or, in the event the Company issues new securities in connection with a financing, the Convertible 12% Note may be converted into such new securities at a conversion price equal to the purchase price paid by the purchasers of such new securities. The Company may also, in its sole discretion, elect to pay interest due on the Convertible 12% Note quarterly in shares of the Company's common stock provided such shares are subject to an effective registration statement. The Convertible 12% Note is subordinated to the Company's outstanding Secured 12% Notes. The Warrant is exercisable at an exercise price of $0.11 per share, subject to adjustment. Because the Convertible 12% Note and the Warrant are convertible into shares of the Company, subject to adjustment, the conversion feature is subject to Derivative Liability accounting (see Note 13).

National Securities Corporation ("National") was the placement agent for the Convertible 12% Note transaction. In connection with the issuance of the Securities, the Company issued warrants to purchase an aggregate of 222,222 shares of Common Stock at an exercise price of $0.11 per share, subject to adjustment, to the placement agent and certain of its designees. Because the warrant is convertible into shares of the Company, subject to adjustment, the warrants are subject to Derivative Liability accounting (see Note 13). The warrants expire on October 28, 2014.

The Convertible 12% Notes mature two years after issuance. Interest on the Convertible 12% Note is compounded quarterly and payable at maturity. At December 31, 2009, accrued and unpaid interest on the Convertible 12% Note amounted to approximately $9,000, and is reflected in the accompanying balance sheet at December 31, 2009 as interest payable on convertible 12% notes payable.

The Company incurred a total of approximately $38,000 of costs in the issuance of the Convertible 12% Note sold in 2009. These costs were capitalized and are being amortized over the life of the Convertible 12% Note into interest expense. During the year ended December 31, 2009, the amount amortized into interest expense was approximately $3,000. The remaining unamortized balance of approximately $35,000 is reflected in the accompanying balance sheet as of December 31, 2009, as a non-current asset, convertible 12% note payable issue costs.

The Company recognized an original issue discount (the "OID") of approximately $200,000 on the issuance of the Convertible 12% Notes. The OID is being amortized over the life of the Convertible 12% Notes into interest expense. During the year ended December 31, 2009 the amount amortized into interest expense was approximately $18,000. The remaining unamortized balance of approximately $182,000 has been netted against the face amount of the Convertible 12% Notes in the accompanying balance sheet as of December 31, 2009.

(13) Derivative Liability

In April 2008, the FASB issued a pronouncement which provides guidance on determining what types of instruments or embedded features in an instrument held by a reporting entity can be considered indexed to its own stock for the purpose of evaluating the first criteria of the scope exception in the pronouncement on accounting for derivatives. This pronouncement was effective for financial statements issued for fiscal years beginning after December 15, 2008. The adoption of these requirements can affect the accounting for warrants and many convertible instruments with provisions that protect holders from a decline in the stock price (or "down-round" provisions). For example, warrants with such provisions will no longer be recorded in equity. Down-round provisions reduce the exercise price of a warrant or convertible instrument if a company either issues equity shares for a price that is lower than the exercise price of those instruments or issues new warrants or convertible instruments that have a lower exercise price. We evaluated whether warrants to acquire stock of the Company contain provisions that protect holders from declines in the stock price or otherwise could result in modification of the exercise price under the respective warrant agreements. We determined that the warrant issued to Nordic in April 2008 (the "Nordic Warrant") and the warrants issued in connection with the 2009 sale of the 12% Notes Payable contained such provisions, thereby concluding they were not indexed to the Company's own stock and were reclassified from equity to derivative liabilities.

In accordance with this pronouncement, the Company estimated the fair value of the Nordic Warrant as of January 1, 2009 to be $22,222 by recording a reduction in additional paid in capital of $150,000 and a decrease in deficit accumulated during the development stage of $127,778. The effect of this adjustment is recorded as a cumulative effect of change in accounting principle in our statements of stockholders' equity (deficiency). As of December 31, 2009, the fair value of these derivatives was $483,333 as recorded in the accompanying balance sheet as of December 31, 2009, as a component of a current liability, derivative liability. The change of $461,111 in fair value during the year ended December 31, 2009 is reported as a non-cash charge in our statement of operations as a component of other (income) expense. In accordance with this pronouncement the Company estimated the fair value at the date of issuance of the conversion feature of the Convertible 12% Note and the fair value of the related warrants to purchase 2,444,444 shares of the Company's common stock at $175,100 and $27,390, respectively. As of December 31, 2009 the fair value of these derivatives totaled $301,444 and are recorded in the accompanying balance sheet as of December 31, 2009 as a component of derivative liability. The change in fair value of $98,954 during the period from issuance to December 31, 2009 is reported as a non-cash charge in our statement of operations as a component of other (income) expense.

(14) Stock Options

A summary of the status of the Company's stock options as of December 31, 2009 and changes during the period then ended is presented below:

	Shares	Weighted average exercise price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at December 31, 2008	10,633,836	$ 0.938		
Granted	-			
Exercised	-			
Canceled	3,007,234	$ 1.485		
Forfeited	166,666	$ 0.950		
Outstanding at December 31, 2009	7,459,936	$ 0.718	6.160	$ -
Exercisable at December 31, 2009	6,750,776	$ 0.755	5.970	$ -
Vested and expected to vest at December 31, 2009	7,451,598	$ 0.718	6.160	$ -
Weighted-average fair value of options granted during the year ended December 31, 2009	None issued			

As of December 31, 2009 and 2008, the total compensation cost related to nonvested option awards not yet recognized is $55,249 and $425,660, respectively. The weighted average period over which it is expected to be recognized is approximately 0.26 and 1.18 years, respectively.

The following table summarizes the information about stock options outstanding at December 31, 2009:

Exercise Price	Number of Options Outstanding	Weighted Average Remaining Life	Number of Options Exercisable
$0.12 - $0.17	2,950,000	8.23	2,441,675
$0.20 - $0.28	260,750	2.05	260,750
$0.70 - $1.00	2,578,853	5.10	2,378,018
$1.35 - $1.65	1,670,333	4.76	1,670,333
Total	7,459,936		6,750,776

(15) Stock Warrants

The following table summarizes the information about warrants to purchase shares of our common stock outstanding at December 31, 2009:

Exercise Price	Number of Warrants Outstanding	Remaining Contractual Life (years)	Number of Warrants Exercisable
$ 1.49	276,741	0.67	276,741
1.44	2,837,351	0.65	2,837,351
1.00	4,074,172	2.25	4,074,172
0.28	150,000	2.64	150,000
0.09	11,111,111	3.29	11,111,111
0.09	39,675,079	3.89	39,675,079
0.09	10,733,355	3.97	10,733,355
0.09	15,716,698	4.09	15,716,698
0.20	140,000	3.69	140,000
0.11	2,444,444	4.83	2,444,444
Total	87,158,951		87,158,951

(16) Income Taxes

There was no current or deferred income tax expense for the years ended December 31, 2009 or 2008 because of the Company's operating losses.

The components of deferred tax assets as of December 31, 2009 and 2008 are as follows:

	2009	2008
Deferred tax assets:		
Tax loss carryforwards	$ 23,170,000	$ 23,947,000
Research and development credit	1,799,000	1,769,000
In-process research and development charge	4,850,000	4,850,000
Share-based compensation	1,603,000	1,459,000
Other	537,000	-
Gross deferred tax assets	31,959,000	32,025,000
Less valuation allowance	(31,959,000)	(32,025,000)
Net deferred tax assets	$ -	$ -

The reasons for the difference between actual income tax benefit for the years ended December 31, 2009 and 2008 and the amount computed by applying the statutory Federal income tax rate to losses before income tax benefit are as follows:

	2009		2008	
	Amount	% of Pre-tax loss	Amount	% of Pre-tax loss
Federal income tax benefit at statutory rate	$ (944,000)	(34.0)%	$(1,451,000)	(34.0)%
State income taxes, net of federal tax	(188,000)	(6.8)%	(290,000)	(6.8)%
Research and development credits	(50,000)	(3.0)%	(130,000)	(3.0)%
Other	-	0.0%	1,000	0.0%
Change in valuation allowance	1,182,000	43.8%	1,870,000	43.8%
	$ -	0.0%	$ -	0.0%

A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The net change in the total valuation allowance for the years ended December 31, 2009 and 2008 was an increase of $1,182,000 and $1,870,000, respectively. The tax benefit assumed using the Federal statutory tax rate of 34% has been reduced to an actual benefit of zero due principally to the aforementioned valuation allowance.

At December 31, 2009, the Company had unused Federal and state net operating loss carryforwards of approximately $58,523,000 and $48,128,000, respectively. The net operating loss carryforwards expire in various amounts through 2029 for Federal and state income tax purposes. The Tax Reform Act of 1986 contains provisions which limit the ability to utilize net operating loss carryforwards in the case of certain events including significant changes in ownership interests. Accordingly, a substantial portion of the Company's net operating loss carryforwards above will be subject to annual limitations (currently approximately $100,000) in reducing any future year's taxable income. At December 31, 2009, the Company also had research and development credit carryforwards of approximately $1,799,000 for Federal income tax purposes which expire in various amounts through 2029.

The Company files income tax returns in the U.S. Federal, State and Local jurisdictions. With certain exceptions, the Company is no longer subject to U.S. Federal and state income tax examinations by tax authorities for years prior to 2006. However, net operating loss carryforwards and tax credits generated from those prior years could still be adjusted upon audit. Effective January 1, 2007, the Company adopted guidance under ASC Topic 740-10 (formerly FIN 48, "Accounting for Uncertainty in Income Taxes – an interpretation of FASB Statement No. 109") which clarifies the accounting and disclosure for uncertainty in income taxes. The adoption of this interpretation did not have a material impact to the financial statements. The Company recognizes interest and penalties to uncertain tax position in income tax expense in the statement of operations.

The Company had no unrecognized tax benefits at December 31, 2009 that would affect the annual effective tax rate. Further, the Company is unaware of any positions for which it is reasonably possible that the total amounts of unrecognized tax benefits will significantly increase or decrease within the next twelve months.

(17) License and Consulting Agreements

IGI Agreement for PTH (1-34)
On April 1, 2005, as part of the acquisition of Tarpan Therapeutics, Inc., the Company acquired a Sublicense Agreement with IGI, Inc. (the "IGI Agreement") dated April 14, 2004. Under the IGI Agreement the Company received the exclusive, world-wide, royalty bearing sublicense to develop and commercialize the licensed technology (see Note 1). Under the terms of the IGI Agreement, the Company was responsible for the cost of the preclinical and clinical development of the project, including research and development, manufacturing, laboratory and clinical testing and trials and marketing of licensed products for which the company will be responsible.

In consideration for the Company's rights under the IGI Agreement, a payment of $300,000 was made upon execution of the agreement, prior to the Company's acquisition of Tarpan. In addition the IGI Agreement required the Company to make certain milestone payments as follows: $300,000 payable upon the commencement of a Phase 2 clinical trial; $500,000 upon the commencement of a Phase 3 clinical trial; $1,500,000 upon the acceptance of an NDA application by the FDA; $2,400,000 upon the approval of an NDA by the FDA; $500,000 upon the commencement of a Phase 3 clinical trial for an indication other than psoriasis; $1,500,000 upon the acceptance of and NDA application for an indication other than psoriasis by the FDA; and $2,400,000 upon the approval of an NDA for an indication other than psoriasis by the FDA.

During 2007, we achieved the milestone of the commencement of Phase 2 clinical trial. As a result $300,000 became payable to IGI. This $300,000 is included in research and development expense for the year ended December 31, 2007. Payment was made to IGI in February 2008.

In addition, the Company was obligated to pay IGI, Inc. an annual royalty of 6% annual net sales on annual net sales up to $200,000,000. In any calendar year in which net sales exceed $200,000,000, the Company was obligated to pay IGI, Inc. an annual royalty of 9% annual net sales. In May 2009, the Company terminated the IGI Agreement. The Company has no further financial liability or commitment to IGI, Inc. under the IGI Agreement.

Hedrin License Agreement
On June 26, 2007, the Company entered into an exclusive license agreement for "Hedrin" (the "Hedrin License Agreement") with Thornton & Ross Ltd. ("T&R") and Kerris, S.A. ("Kerris"). Pursuant to the Hedrin License Agreement, the Company has acquired an exclusive North American license to certain patent rights and other intellectual property relating to Hedrin(TM), a non-insecticide product candidate for the treatment of head lice. In addition, on June 26, 2007, the Company entered into a supply agreement with T&R pursuant to which T&R will be the Company's exclusive supplier of Hedrin product the "Hedrin Supply Agreement".

In consideration for the license, the Company issued to T&R and Kerris (jointly, the "Licensor") a combined total of 150,000 shares of its common stock valued at $120,000. In addition, the Company also made a cash payment of $600,000 to the Licensor. These amounts are included in research and development expense. Further, the Company agreed to make future milestone payments to the Licensor in the aggregate amount of $2,500,000 upon the achievement of various clinical, regulatory, and patent issuance milestones, as well as up to $2,500,000 in a one-time success fee based on aggregate sales of the product by the Company and its licensees of at least $50,000,000. The Company also agreed to pay royalties of 8% (or, under certain circumstances, 4%) on net sales of licensed products. The Company's exclusivity under the Hedrin License Agreement is subject to an annual minimum royalty payment of $1,000,000 (or, under certain circumstances, $500,000) in each of the third through seventh years following the first commercial sale of Hedrin. The Company may sublicense its rights under the Hedrin Agreement with the consent of Licensor and the proceeds resulting from such sublicenses will be shared with the Licensor.

Pursuant to the supply agreement, the Company has agreed that it and its sublicensees will purchase their respective requirements of the Hedrin product from T&R at agreed upon prices. Under certain circumstances where T&R is unable to supply Hedrin products in accordance with the terms and conditions of the Supply Agreement, the Company may obtain products from an alternative supplier subject to certain conditions. The term of the Supply Agreement ends upon termination of the Hedrin Agreement.

In February 2008 the Company assigned and transferred its rights in Hedrin to a joint venture (see Note 6).

Altoderm License Agreement
On April 3, 2007, the Company entered into a license agreement for "Altoderm" (the "Altoderm Agreement") with T&R. Pursuant to the Altoderm Agreement, the Company acquired an exclusive North American license to certain patent rights and other intellectual property relating to Altoderm, a topical skin lotion product candidate using sodium cromoglicate for the treatment of atopic dermatitis.

In February 2009, the Company terminated the Altoderm Agreement. The Company has no further financial liability or commitment to T&R under the Altoderm Agreement.

Altolyn License Agreement
On April 3, 2007, the Company and T&R also entered into a license agreement for "Altolyn" (the "Altolyn Agreement"). Pursuant to the Altolyn Agreement, the Company acquired an exclusive North American license to certain patent rights and other intellectual property relating to Altolyn, an oral formulation product candidate using sodium cromoglicate for the treatment of mastocytosis, food allergies, and inflammatory bowel disorder.

In February 2009, the Company terminated the Altolyn Agreement for convenience. The Company has no further financial liability or commitment to T&R under the Altolyn Agreement.

(18) Subsequent events – Unaudited

8% Note
On January 13, 2010, the Company withdrew $20,000 subject to the 8% Note with Ariston Pharmaceuticals, Inc. (see Note 10 above). Additionally, on January 28, 2010, the Company withdrew an additional $20,000 subject to the 8% Note. On March 4, 2010, the Company repaid Ariston the $67,000 withdrawn subject to the 8% Note and accrued interest of $816.

Equity PIPE

On March 2, 2010, the Company raised aggregate gross proceeds of approximately $2,547,500 pursuant to a private placement of its securities. The Company entered into subscription agreements (the "Subscription Agreements") with seventy-seven accredited investors (the "Investors") pursuant to which the Company sold an aggregate of 101.9 Units (as defined herein) for a purchase price of $25,000 per Unit. Pursuant to the Subscription Agreements, the Company issued to each Investor units (the "Units") consisting of (i) 357,143 shares of common stock, $0.001 par value per share (the “Common Stock” or “Shares”) of the Company and (ii) 535,714 warrants (each a “Warrant” and collectively the “Warrants”), each of which will entitle the holder to purchase one additional share of Common Stock for a period of five years (each a “Warrant Share” and collectively the “Warrant Shares”) at an exercise price of $0.08 per share.

The Nordic Put and Nordic Warrant were issued at a value of $0.14 per share and were issued with anti-dilution rights. The issuance of any securities at a value of less than $0.14 per share activates Nordic’s anti-dilution rights. The Secured 12% Note transaction included warrants with an exercise price of $0.09 per share, this activated Nordic’s anti-dilution rights as reflected in the table below under the caption “Before the Equity Pipe Transaction”. Any issuances of any securities subsequent to the Secured 12% Note transaction at a value of less than $0.09 further activates Nordic’s anti-dilution rights. The Equity Pipe transaction in March 2010 effectively included the sale of one share of common stock and a warrant to purchase 1.5 shares of common stock for a price of $0.07. The JV Agreement between Nordic and Manhattan governs the antidilution protection to Nordic. Section 5.1 of that agreement state ”If shares of Common Stock or Common Stock Equivalents are issued or sold together with other stock or securities or other assets of MHA (Manhattan) for a consideration which covers both, the effective price per share shall be computed with regard to the portion of the consideration so received that may reasonably be determined in good faith by the Board of Directors, to be allocable to such Common Stock or Common Stock Equivalent.” The good faith determination of the effective price per share was $0.07 for each share of common stock sold and a de minimus value to the warrants. The Nordic Put and the Nordic Warrant are now valued at a price of $0.07 per share. The following table shows the effect of Nordic’s anti-dilution rights.

	Shares Issuable Upon Exercise of Nordic's Put	Shares Issuable Upon Exercise of Nordic's Warrant	Total Shares Issuable Upon Exercise of Nordic's Put and Warrant
Before the Equity Pipe Transaction	55,555,556	11,111,111	66,666,667
Antidilution shares	15,873,015	3,174,603	19,047,618
After the Equity Pipe Transaction	71,428,571	14,285,714	85,714,285

In March 2010, we received correspondence from Nordic that questions how we calculated the anti-dilution shares, as shown above, and suggesting that we did not employ a good faith estimate. We believe our determination was made in good faith and is appropriate.

All of the Investors represented that they were “accredited investors,” as that term is defined in Rule 501(a) of Regulation D under the Securities Act, and the sale of the Units was made in reliance on exemptions provided by Regulation D and Section 4(2) of the Securities Act of 1933, as amended.

In connection with the closing of the private placement, the Company, the placement agent acting in connection with the private placement (the “Placement Agent”) and the Investors entered into a Registration Rights Agreement, dated as of March 2, 2010, and the Company agreed to file a registration statement to register the resale of the Shares, within 60 days of the final closing date and to cause the registration statement to be declared effective within 150 days (or 180 days upon review by the SEC).

The Company received net proceeds of approximately $2,158,000 after payment of an aggregate of $305,700 of commissions and expense allowance to the Placement Agent, and approximately $83,000 of other offering and related costs in connection with the private placement. In addition, the Company issued a warrant to purchase 3,639,289 shares of Common Stock at an exercise price of $0.08 per share to the Placement Agent as additional compensation for its services.

The Company did not use any form of advertising or general solicitation in connection with the sale of the Units. The Shares, the Warrants and the Warrant Shares are non-transferable in the absence of an effective registration statement under the Act, or an available exemption therefrom, and all certificates are imprinted with a restrictive legend to that effect.

Hedrin JV

As per the Limited Partnership Agreement between the Company and Nordic (the "LPA") in the event that a limited partner in the Hedrin JV (a "Limited Partner") determines, in its reasonable goods faith discretion, that the Hedrin JV requires additional capital for the proper conduct of its business that Limited Partner shall provide each Limited Partner with a written request for contribution of such Limited Partner's proportionate share, in accordance to the then respective equity ownership in the Hedrin JV, of such requested additional capital amount.

As per the terms of the LPA, if a Limited Partner declines to so contribute, elects to contribute but thereafter fails to do so timely, or elects to contribute and timely does contribute some, but not all of, its proportionate share of the requested additional capital amount, the other Limited Partner shall have the option to contribute the remaining balance of such requested additional capital amount.

As per the terms of the LPA, the General Partner shall determine the fair market value of the shares for purposes of determining how to allocate the number of shares of the Hedrin JV to be issued in consideration for the contribution of capital. If the General Partner is unable to determine the fair market value of the shares, the fair market value for the shares shall be determined in good faith by the contributing Limited Partner if such amount is equal to or greater than the most recent valuation of such Hedrin JV shares.

On December 31, 2009 Nordic Biotech Venture Fund II ("Nordic") delivered a written notice to the Company for a $1,000,000 capital increase to the Hedrin JV. In January 2010, Nordic made its capital contribution to the Hedrin JV of $500,000. The Company did not have sufficient funds to make such a capital contribution within the required time prescribed in the LPA.

The General Partner was unable to determine the fair market value of the shares. The contributing Limited Partner, Nordic, determined in good faith that the fair market value of the shares is equal to the most recent valuation. The most recent valuation was the February 2009 investment of $1,500,000 into the Hedrin JV by Nordic at $5,000 per share. As a result of Nordic's investing an additional $500,000 in the Hedrin JV the ownership percentages of the Hedrin JV have changed from 50% to Nordic and 50% for the Company to 52.38% to Nordic and 47.62% for the Company. In the event that Nordic exercises its option to invest the remaining $500,000 of the $1,000,000 capital increase then the ownership percentage shall change to 54.55% for Nordic and 45.45% for the Company.

Ariston Merger

On March 8, 2010, Manhattan Pharmaceuticals, Inc. (the “Company” or "Manhattan") entered into an Agreement and Plan of Merger (the "Merger Agreement") by and among the Company, Ariston Pharmaceuticals, Inc., a Delaware corporation ("Ariston") and Ariston Merger Corp., a Delaware corporation and wholly-owned subsidiary of the Company (the "Merger Sub"). Pursuant to the terms and conditions set forth in the Merger Agreement, on March 8, 2010, the Merger Sub merged with and into Ariston (the "Merger"), with Ariston being the surviving corporation of the Merger. As a result of the Merger, Ariston became a wholly-owned subsidiary of the Company.

Under the terms of the Merger Agreement, the consideration payable by the Company to the stockholders and note holders of Ariston consists of the issuance of 7,062,423 shares of the Company's common stock, par value $0.001 per share, (" Common Stock ") at Closing (as defined in the Merger Agreement) plus the right to receive up to an additional 24,718,481 shares of Common Stock (the “Milestone Shares”) upon the achievement of certain product-related milestones described below. In addition, the Company has reserved 38,630,723 shares of its Common Stock for possible future issuance in connection with the conversion of $15.45 million of outstanding Ariston convertible promissory notes. The note holders will not have any recourse to the Company for repayment of the notes (their sole recourse being to Ariston), but the note holders will have the right to convert the notes into shares of the Company's Common Stock at the rate of $0.40 per share. Further, the Company has reserved 5,000,000 shares of its Common Stock for possible future issuance in connection with the conversion of $1.0 million of outstanding Ariston convertible promissory note issued in satisfaction of a trade payable. The note holder will not have any recourse to the Company for repayment of the note (their sole recourse being to Ariston), but the note holder will have the right to convert the note into shares of the Company's Common Stock at the rate of $0.20 per share.

Upon the achievement of the milestones described below, the Company would be obligated to issue portions of the Milestone Shares to the former Ariston stockholders and noteholders:

- Upon the affirmative decision of the Company’ Board of Directors, provided that such decision is made prior to March 8, 2011, to further develop the AST-914 metabolite product candidate, either internally or through a corporate partnership, the Company would issue 8,828,029 of the Milestone Shares.
- Upon the acceptance by the FDA of the Company's filing of the first New Drug Application for the AST-726 product candidate, the Company would issue 7,062,423 of the Milestone Shares.
- Upon the Company receiving FDA approval to market the AST-726 product candidate in the United States of America, the Company would issue 8,828,029 of the Milestone Shares.

Certain members of the Company's board of directors and principal stockholders of the Company owned Ariston securities. Timothy McInerney, a director of Manhattan, owned 16,668 shares of Ariston common stock which represented less than 1% of Ariston’s outstanding common stock as of the closing of the Merger. Neil Herskowitz, a director of Manhattan, indirectly owned convertible promissory notes of Ariston with interest and principal in the amount of $192,739. Michael Weiser, a director of Manhattan, owned 117,342 shares of Ariston common stock, which represented approximately 2.1% of Ariston’s outstanding common stock as of the closing of the Merger. Lindsay Rosenwald, a more than 5% beneficial owner of Manhattan common stock, in his individual capacity and indirectly through trusts and companies he controls owned 497,911 shares of Ariston common stock, which represented approximately 8.9% of Ariston’s outstanding common stock as of the closing of the Merger and indirectly owned convertible promissory notes of Ariston in the amount of $141,438.

The Company merged with Ariston principally to add new products to our portfolio. Prior to the Mereger, Ariston was a private, clinical stage specialty biopharmaceutical company based in Shrewsbury, Massachusetts that in-licenses, develops and plans to market novel therapeutics for the treatment of serious disorders of the central and peripheral nervous systems.

The initial accounting for the Merger was incomplete as of the date of these financials statements, therefore certain required disclosures for the Merger could not be made.

Index to Exhibits Filed with this Report

Exhibit No.	Description
23.1	Consent of J.H. Cohn LLP.
31.1	Certification of Principal Executive Officer.
31.2	Certification of Principal Financial Officer.
32.1	Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Exhibit 4.9

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS, OR AN OPINION OF COUNSEL, IN A FORM ACCEPTABLE TO THE COMPANY, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR APPLICABLE STATE SECURITIES LAWS OR UNLESS SOLD PURSUANT TO RULE 144 UNDER SAID ACT.

MANHATTAN PHARMACEUTICALS, INC.

FORM OF WARRANT

Warrant No. MPI-__ Dated: _____

Manhattan Pharmaceuticals, Inc., a Delaware corporation (the " **Company** "), hereby certifies that, for value received, [_____] or his or her Permitted Transferees (as hereinafter defined) (the " **Holder** "), is entitled to purchase from the Company up to a total of [_____] shares of common stock, $0.001 par value per share (the " **Common Stock** "), of the Company (each such share, a " **Warrant Share** " and all such shares issuable under the warrants, the " **Warrant Shares** ") at an exercise price of $0.08 (as adjusted from time to time as provided in Section 9 , the " **Exercise Price** "), at any time and from the date hereof and through March 2, 2015 (the " **Expiration Date** "), and subject to the following terms and conditions.

This Warrant (" **Warrant** ") is one of a series of warrants issued pursuant to that certain Confidential Private Placement Memorandum dated December 28, 2009, as the same may be amended or supplemented from time to time (the " **Memorandum** "), pursuant to which the Company is offering (the " **Offering** ") units (the " **Units** ") consisting of Common Stock and Warrants (of which this Warrant is one) exercisable for shares of Common Stock of the Company. The Holder has purchased Units pursuant to that certain Subscription Agreement, dated as of the date hereof, by and between the Company and the Holder (the " **Subscription Agreement** "). All warrants that are included in the Units are referred to herein, collectively, as the " **Warrants** " and the holders of the Warrants (as well as any subsequent Permitted Transferee) along with the Holder named herein, the " **Holders** ."

1. Definitions . In addition to the terms defined elsewhere in this Warrant, capitalized terms that are not otherwise defined herein have the meanings given to such terms in the Subscription Agreement.

2. Registration of Warrant . The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the " **Warrant Register** "), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

3. Registration of Transfers . The Company shall register the transfer and/or assignment of any portion of this Warrant (a " **Permitted Transferee** ") in the Warrant Register, upon surrender of this Warrant, with the Form of Assignment attached hereto duly completed and signed, to the Company's transfer agent or to the Company at its address specified herein. Upon any such registration or transfer, a new warrant to purchase Common Stock, in substantially the form of this Warrant (any such new warrant, a " **New Warrant** "), evidencing the portion of this Warrant so transferred shall be issued to the Permitted Transferee and a New Warrant evidencing the remaining portion of this Warrant not so transferred, if any, shall be issued to the transferring Holder. The acceptance of the New Warrant by the Permitted Transferee thereof shall be deemed the acceptance by such Permitted Transferee of all of the rights and obligations of a holder of a Warrant.

4. Exercise and Duration of Warrants .

(a) This Warrant shall be exercisable by the registered Holder at any time and from time to time on or after the date hereof to and including the Expiration Date. At 5:00 P.M., New York City time on the Expiration Date, the portion of this Warrant not exercised prior thereto shall be and become void and of no value and this Warrant shall be terminated and no longer be outstanding.

(b) The Holder may exercise this Warrant by delivering to the Company (i) an exercise notice, in the form attached hereto (the " **Exercise Notice** "), appropriately completed and duly signed, and (ii) payment of the Exercise Price for the number of Warrant Shares as to which this Warrant is being exercised (which may take the form of a "Cashless Exercise" if so indicated in the Exercise Notice pursuant to Section 10 below), and the date such items are delivered to the Company (as determined in accordance with the notice provisions hereof) is an " **Exercise Date** ."

(c) Exercise Disputes . In the case of any dispute with respect to the number of shares to be issued upon exercise of this Warrant, the Company shall promptly issue such number of shares of Common Stock that is not disputed and shall submit the disputed determinations or arithmetic calculations to the Holder via fax (or, it the Holder has not provided the Company with a fax number, by overnight courier) within five (5) Business Days of receipt of the Holder's election to purchase Warrant Shares. If the Holder and the Company are unable to agree as to the determination of the Exercise Price within five (5) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall in accordance with this Section, submit via facsimile the disputed determination to its independent auditor. The Company shall cause its independent auditor to perform the determinations or calculations and notify the Company and the Holder of the results promptly, in writing and in sufficient detail to give the Holder and the Company a clear understanding of the issue. The determination by the Company's independent auditor shall be binding upon all parties absent manifest error. The Company shall then on the next Business Day instruct its transfer agent to issue certificate(s) representing the appropriate number of Warrant Shares of Common Stock in accordance with the independent auditor's determination and this Section. The prevailing party shall be entitled to reimbursement of all fees and expenses of such determination and calculation.

5. Delivery of Warrant Shares .

(a) Upon exercise of this Warrant, the Company shall promptly (but in no event later than five (5) Trading Days after the Exercise Date) issue or cause to be issued and cause to be delivered to or upon the written order of the Holder and in such name or names as the Holder may designate, a certificate for the Warrant Shares to which the Holder is entitled upon such exercise, free of restrictive legends unless a registration statement covering the resale of the Warrant Shares and naming the Holder as a selling stockholder thereunder is not then effective and the Warrant Shares are not freely transferable pursuant to Rule 144 under the Securities Act. To the extent the Warrant Shares may be issued free of restrictive legends as set forth above, upon request of the Holder, the Company shall use its best efforts to deliver Warrant Shares hereunder electronically through the Depository Trust Corporation or another established clearing corporation performing similar functions. For the purposes hereof, the term " **Trading Day** " means (a) any day on which the Common Stock is listed or quoted and traded on its primary trading market and/or quotation system, as the case may be, (b) if the Common Stock is not then listed or quoted and traded on any trading market, then a day on which trading occurs on the Nasdaq Global Market (or any successor thereto), or (c) if trading ceases to occur on the Nasdaq Global Market (or any successor thereto), any Business Day.

(b) This Warrant is exercisable, either in its entirety or, from time to time, for a portion of the number of Warrant Shares. Upon surrender of this Warrant following one or more partial exercises, the Company shall issue or cause to be issued, at its expense, a New Warrant evidencing the right to purchase the remaining number of Warrant Shares.

(c) The Company's obligations to issue and deliver Warrant Shares in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other Person of any obligation to the Company or any violation or alleged violation of law by the Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Company to the Holder in connection with the issuance of Warrant Shares. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

6. Charges, Taxes and Expenses . Issuance and delivery of certificates for shares of Common Stock upon exercise of this Warrant shall be made without charge to the Holder for any issue or transfer tax, withholding tax, transfer agent fee or other incidental tax or expense in respect of the issuance of such certificates, all of which taxes and expenses shall be paid by the Company; provided , however , that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the registration of any certificates for Warrant Shares or Warrants in a name other than that of the Holder. The Holder shall be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

7. Replacement of Warrant . If this Warrant is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation hereof, or in lieu of and substitution for this Warrant, a New Warrant, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction and customary and reasonable bond or indemnity, if requested. Applicants for a New Warrant under such circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable third-party costs as the Company may prescribe.

8. Reservation of Warrant Shares . The Company covenants that it will at all times reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Common Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of this Warrant as herein provided, the number of Warrant Shares which are then issuable and deliverable upon the exercise of this entire Warrant, free from preemptive rights or any other contingent purchase rights of persons other than the Holder (after giving effect to the adjustments and restrictions of Section 9 , if any). The Company covenants that all Warrant Shares so issuable and deliverable shall, upon issuance and the payment of the applicable Exercise Price in accordance with the terms hereof, be duly and validly authorized, issued and fully paid and nonassessable. The Company will take all such action as may be necessary to assure that such shares of Common Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system upon which the Common Stock may be listed.

9. Certain Adjustments . The Exercise Price and number of Warrant Shares issuable upon exercise of this Warrant are subject to adjustment from time to time as set forth in this Section 9 .

(a) Stock Dividends and Splits . If the Company, at any time while this Warrant is outstanding, (i) pays a stock dividend on its Common Stock or otherwise makes a distribution on any class of capital stock that is payable in shares of Common Stock, (ii) subdivides outstanding shares of Common Stock into a larger number of shares, or (iii) combines outstanding shares of Common Stock into a smaller number of shares, then in each such case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, and any adjustment pursuant to clause (ii) or (iii) of this paragraph shall become effective immediately after the effective date of such subdivision or combination.

(b) Additional Issuances of Equity Securities . If the Company, at any time while this Warrant is outstanding, shall issue or sell any Equity Securities (as defined below) at an effective price per share less than the then effective Exercise Price (such lower price, the " **Base Share Price** " and such issuances collectively, a " **Dilutive Issuance** "), as adjusted hereunder (if the holder of the Equity Securities so issued shall at any time, whether by operation of purchase price adjustments, reset provisions, floating conversion, exercise or exchange prices or otherwise, or due to warrants, options or rights per share which is issued in connection with such issuance, be entitled to receive shares of Common Stock at an effective price per share which is less than the then effective Exercise Price, such issuance shall be deemed to have occurred for less than the then effective Exercise Price on such date of the Dilutive Issuance), then, the Exercise Price shall be reduced and only reduced to equal the Base Share Price. Notwithstanding the foregoing, no adjustments shall be made, paid or issued under this Section 9(b) in respect of Exempt Issuances (as defined below). The Company shall notify the Holder in writing as promptly as reasonably possible following the issuance of any Equity Securities subject to this section, indicating therein the applicable issuance price, or of applicable reset price, exchange price, conversion price and other pricing terms (such notice the " **Dilutive Issuance Notice** "). For purposes of clarification, whether or not the Company provides a Dilutive Issuance Notice pursuant to this Section 9(b) , upon the occurrence of any Dilutive Issuance while this Warrant is outstanding, after the date of such Dilutive Issuance the Holder is entitled to the Base Share Price regardless of whether the Holder accurately refers to the Base Share Price in the Exercise Notice.

For purposes of this Section 9(b) , the following definitions shall apply:

" **Common Stock Equivalents** " means any securities of the Company or its subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

" **Equity Securities** " means (i) Common Stock and (ii) Common Stock Equivalents.

" **Exempt Issuance** " means (i) any Equity Securities issued or issuable pursuant to options, warrants or other rights issued or issuable to employees, officers or directors of, or consultants or advisors to the Company or any subsidiary, pursuant to equity incentive plans or other employee benefit arrangements; (ii) any Equity Securities issued or issuable pursuant to any rights or agreements, options, warrants or convertible securities outstanding as of the issuance date of this Warrant; (iii) any Equity Securities issued or issuable for consideration other than cash pursuant to a merger, consolidation, strategic alliance, acquisition or similar business combination; (iv) any Equity Securities issued or issuable in connection with any stock split, stock dividend, distribution or recapitalization by the Company; (v) any Equity Securities issued or issuable pursuant to any equipment loan or leasing arrangement, real property leasing arrangement, or debt financing from a bank or similar financial or lending institution; and (vi) any Equity Securities issued or issuable to Holders, the Placement Agent or any of their respective affiliates in connection with the Offering.

(c) Fundamental Transactions . If at any time during the term of this Warrant the Company proposes to engage in a "Fundamental Transaction" (as hereinafter defined) then, and in any one or more of such cases, the Company will give to the Holder at least 10 days' prior written notice of the date on which the books of the Company will close or a record will be taken for determining rights to vote with respect to such Fundamental Transaction. Such notice will describe the nature of the Fundamental Transaction, the date on which the holders of the Common Shares will be entitled thereto, and such notice will also specify the date on which the holders of the Common Shares will be entitled to exchange the Common Shares for securities or other property deliverable upon the consummation of the Fundamental Transaction. A " **Fundamental Transaction** " is any (i) merger or consolidation of the Company with or into (whether or not the Company is the surviving corporation) another Person, (ii) any sale, assignment, transfer, conveyance or other disposition by the Company of all or substantially all of its assets in one or a series of related transactions; provided , however , that for avoidance of doubt, the granting of a lien on all or substantially all of the Company's assets as collateral shall not be deemed a Fundamental Transaction hereunder, (iii) purchase, tender or exchange offer by the Company (or to which the Company is a party) that will be for more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer, (iv) business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) requiring shareholder approval with another Person whereby such other Person acquires more than the 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock purchase agreement or other business combination), or (v) reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock covered by Section 9(a) above).

(d) The Company will not by reorganization, transfer of assets, consolidation, merger, dissolution, or otherwise, avoid or seek to avoid observance or performance of any of the terms of this Section 9 , but will at all times in good faith assist in the carrying out and performance of all provisions of this Section 9 in order to protect the rights of the Holder against impairment.

(e) Number of Warrant Shares . Simultaneously with any adjustment to the Exercise Price pursuant to paragraph (a) or (b) of this Section, the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately, as applicable, so that after such adjustment the aggregate Exercise Price payable hereunder for the increased or decreased, as applicable, number of Warrant Shares shall be the same as the aggregate Exercise Price in effect immediately prior to such adjustment.

(f) Calculations . All calculations under this Section 9 shall be made to the nearest cent or the nearest share, as applicable. The number of shares of Common Stock outstanding at any given time shall not include shares owned or held by or for the account of the Company, and the disposition of any such shares shall be considered an issue or sale of Common Stock.

(g) Notice of Adjustments . Upon the occurrence of each adjustment pursuant to this Section 9 , the Company at its expense will promptly compute such adjustment in accordance with the terms of this Warrant and prepare a certificate setting forth such adjustment, including a statement of the adjusted Exercise Price and adjusted number or type of Warrant Shares or other securities issuable upon exercise of this Warrant (as applicable), describing the transactions giving rise to such adjustments and showing in detail the facts upon which such adjustment is based. Upon written request, the Company will promptly deliver a copy of each such certificate to the Holder and to the Company's Transfer Agent.

(h) Notice of Corporate Events . If the Company (i) declares a dividend or any other distribution of cash, securities or other property in respect of its Common Stock, including without limitation any granting of rights or warrants to subscribe for or purchase any capital stock of the Company or any Subsidiary, (ii) authorizes or approves, enters into any agreement contemplating or solicits stockholder approval for any Fundamental Transaction or (iii) authorizes the voluntary dissolution, liquidation or winding up of the affairs of the Company, then the Company shall deliver to the Holder a notice describing the material terms and conditions of such transaction, at least ten calendar days prior to the applicable record or effective date on which a Person would need to hold Common Stock in order to participate in or vote with respect to such transaction, and the Company will take all steps reasonably necessary in order to insure that the Holder is given the practical opportunity to exercise this Warrant prior to such time so as to participate in or vote with respect to such transaction; provided , however , that the failure to deliver such notice or any defect therein shall not affect the validity of the corporate action required to be described in such notice.

10. Payment of Exercise Price . The Holder shall pay the Exercise Price in immediately available funds (a " **Cash Exercise** "); or the Holder may satisfy its obligation to pay the Exercise Price through a " **Cashless Exercise** ," in which event the Company shall issue to the Holder the number of Warrant Shares determined as follows:

$$X = Y [(A-B)/A]$$

where:

X = the number of Warrant Shares to be issued to the Holder.

Y = the number of Warrant Shares with respect to which this Warrant is being exercised (prior to cashless exercise).

A = the average of the Closing Prices for the five (5) Trading Days immediately prior to (but not including) the Exercise Date.

B = the Exercise Price.

For purposes of this Section 10 , " **Closing Prices** " for any date, shall mean the closing price per share of the Common Stock for such date (or the nearest preceding date) on the primary trading market on which the Common Stock is then listed or quoted.

For purposes of Rule 144 promulgated under the Securities Act, it is intended, understood and acknowledged that the Warrant Shares issued in a cashless exercise transaction shall be deemed to have been acquired by the Holder, and the holding period for the Warrant Shares shall be deemed to have commenced, on the date this Warrant was originally issued to the Holder (provided the Securities and Exchange Commission continues to take the position that such treatment is proper at the time of such exercise).

11. Limitation on Exercise . Notwithstanding anything to the contrary contained herein, the number of shares of Common Stock that may be acquired by the Holder upon any exercise of this Warrant (or otherwise in respect hereof) shall be limited to the extent necessary to insure that, following such exercise (or other issuance), the total number of shares of Common Stock then beneficially owned by such Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the " **Exchange Act** "), does not exceed 4.999% (the " **Maximum Percentage** ") of the total number of issued and outstanding shares of Common Stock (including for such purpose the shares of Common Stock issuable upon such exercise). For such purposes, "beneficial ownership" shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. The Company's obligation to issue shares of Common Stock in excess of the limitation referred to in this Section shall be suspended (and shall not terminate or expire notwithstanding any contrary provisions hereof) until such time, if any, as such shares of Common Stock may be issued in compliance with such limitation, but in no event later than the Expiration Date. By written notice to the Company, the Holder may waive the provisions of this Section or increase or decrease the Maximum Percentage to any other percentage specified in such notice, but any such waiver or increase will not be effective until the 61st day after such notice is delivered to the Company.

12. Fractional Shares . The Company shall not be required to issue or cause to be issued fractional Warrant Shares on the exercise of this Warrant. In lieu of any fractional shares which would, otherwise be issuable, subject to Section 11 , the Company shall pay the Holder entitled to such fractional Warrant Share a sum in cash equal to such fraction (calculated to the nearest 1/100 th of a Warrant Share) multiplied by the then effective Exercise Price.

13. Notices . Any and all notices or other communications or deliveries hereunder (including without limitation any Exercise Notice) shall be in writing and shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in the Subscription Agreement prior to 5:00 p.m. (New York City time) on a Trading Day, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in the Subscription Agreement on a day that is not a Trading Day or later than 5:00 p.m. (New York City time) on any Trading Day, (iii) the Trading Day following the date of mailing if sent by nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. The address for such notices or communications shall be as set forth in the Subscription Agreement.

14. Warrant Agent . The Company shall serve as warrant agent under this Warrant. Upon thirty (30) days' notice to the Holder, the Company may appoint a new warrant agent. Any corporation and/or other entity into which the Company or any new warrant agent may be merged or any corporation resulting from any consolidation to which the Company or any new warrant agent shall be a party shall be a successor warrant agent under this Warrant without any further act. Any such successor warrant agent shall promptly cause notice of its succession as warrant agent to be mailed (by first class mail, postage prepaid) to the Holder at the Holder's last address as shown on the Warrant Register.

15. Miscellaneous .

(a) Subject to the restrictions on transfer set forth on the first page hereof, this Warrant may be transferred or assigned by the Holder to a Permitted Transferee pursuant to Section 3 provided, that, among other things, the Permitted Transferee covenants to be bound by the terms hereof. This Warrant may not be assigned by the Company, except to a successor in the event of a Fundamental Transaction. This Warrant shall be binding on and inure to the benefit of the parties hereto and their respective successors and assigns. Subject to the preceding sentence, nothing in this Warrant shall be construed to give to any Person other than the Company and the Holder any legal or equitable right, remedy or cause of action under this Warrant.

(b) The Company will not, by amendment of its governing documents or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, seek to call or redeem this Warrant or avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder against dilution or other impairment. Without limiting the generality of the foregoing, the Company (i) will not increase the par value of any Warrant Shares above the amount payable therefor on such exercise, (ii) will take all such action as may be reasonably necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares, free from all taxes, liens, security interests, encumbrances, preemptive or similar rights and charges of stockholders (other than those imposed by the Holders), on the exercise of the Warrant, and (iii) will not close its stockholder books or records in any manner which interferes with the timely exercise of this Warrant.

(c) Remedies; Specific Performance . The Company acknowledges and agrees that there would be no adequate remedy at law to the Holder of this Warrant in the event of any default or threatened default by the Company in the performance of or compliance with any of the terms of this Warrant and accordingly, the Company agrees that, in addition to any other remedy to which the Holder may be entitled at law or in equity, the Holder shall be entitled to seek to compel specific performance of the obligations of the Company under this Warrant, without the posting of any bond, in accordance with the terms and conditions of this Warrant in any court of the United States or any State thereof having jurisdiction, and if any action should be brought in equity to enforce any of the provisions of this Warrant, the Company shall not raise the defense that there is an adequate remedy at law. Except as otherwise provided by law, a delay or omission by the Holder hereof in exercising any right or remedy accruing upon any such breach shall not impair the right or remedy or constitute a waiver of or acquiescence in any such breach. No remedy shall be exclusive of any other remedy. All available remedies shall be cumulative.

(d) Amendments and Waivers . The Company may, without the consent of the Holders (but with written notice to the Holders), by supplemental agreement or otherwise, (i) make any changes or corrections in this Agreement that are required to cure any ambiguity or to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein or (ii) add to the covenants and agreements of the Company for the benefit of the Holders (including, without limitation, reduce the Exercise Price or extend the Expiration Date), or surrender any rights or power reserved to or conferred upon the Company in this Agreement; provided that, in the case of (i) or (ii), such changes or corrections shall not adversely affect the interests of Holders of then outstanding Warrants in any material respect. This Warrant may also be amended or waived with the consent of the Company and the Holder. Further, the Company may, with the consent, in writing or at a meeting, of the Holders of the then outstanding Warrants exercisable for at least sixty-six and two-thirds (66 2/3) of the Common Stock issuable upon exercise of such Warrants (the " **Required Holders** "), amend in any way, by supplemental agreement or otherwise, this Warrant and/or all of the outstanding Warrants; provided , however , that (i) no such amendment by its express terms shall adversely affect any Holder differently than it affects all other Holders, unless such Holder consents thereto, and (ii) no such amendment concerning the number of Warrant Shares or Exercise Price shall be made unless any Holder who will be affected by such amendment consents thereto. If a new warrant agent is appointed by the Company, it shall at the request of the Company, and without need of independent inquiry as to whether such supplemental agreement is permitted by the terms of this Section 16(d) , join with the Company in the execution and delivery of any such supplemental agreements, but shall not be required to join in such execution and delivery for such supplemental agreement to become effective.

(e) Governing Law; Venue; Waiver Of Jury Trial . This Warrant shall be governed by and construed exclusively in accordance with the internal laws of the State of New York without regard to the conflicts of laws principles thereof. The parties hereto hereby expressly and irrevocably agree that any suit or proceeding arising directly and/or indirectly pursuant to, arising out of or under this Warrant, shall be brought solely and exclusively in a federal or state court located in the City, County and State of New York. By its execution hereof, the parties hereby expressly covenant and irrevocably submit to the in personam jurisdiction of the federal and state courts located in the City, County and State of New York and agree that any process in any such action may be served upon any of them personally, or by certified mail or registered mail upon them or their agent, return receipt requested, with the same full force and effect as if personally served upon them in New York City. The parties hereto expressly and irrevocably waive any claim that any such jurisdiction is not a convenient forum for any such suit or proceeding and any defense or lack of in personam jurisdiction with respect thereto. In the event of any such action or proceeding (including, but not limited to, any motions made), the party prevailing therein shall be entitled to payment from the other party hereto of its reasonable counsel fees and disbursements. The Company and Holders hereby waive all rights to a trial by jury.

(f) Headings The headings herein are for convenience only, do not constitute a part of this Warrant and shall not be deemed to limit or affect any of the provisions hereof.

(g) Partial Invalidity. In case any one or more of the provisions of this Warrant shall be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Warrant shall not in any way be affected or impaired thereby and the parties will attempt in good faith to agree upon a valid and enforceable provision which shall be a commercially reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Warrant.

IN WITNESS WHEREOF , the Company has caused this Warrant to be duly executed by its authorized officer as of the date first indicated above.

MANHATTAN PHARMACEUTICALS, INC.

By: _____

Name: Michael McGuinness
Title: Chief Financial Officer

FORM OF EXERCISE NOTICE

(To be executed by the Holder to exercise the right to purchase shares of Common Stock under the foregoing Warrant)

To: MANHATTAN PHARMACEUTICALS, INC.

The undersigned is the Holder of Warrant No. _____ (the " **Warrant** ") issued by Manhattan Pharmaceuticals, Inc., a Delaware corporation (the " **Company** "). Capitalized terms used herein and not otherwise defined have the respective meanings set forth in the Warrant.

(a) The Warrant is currently exercisable to purchase a total of _____ Warrant Shares.

(b) The undersigned Holder hereby exercises its right to purchase _____ Warrant Shares pursuant to the Warrant.

(c) The holder shall make payment of the Exercise Price as follows (check one):

_____ "Cash Exercise" under Section 10

_____ "Cashless Exercise" under Section 10

(d) If the holder is making a Cash Exercise, the holder shall pay the sum of $_____ to the Company in accordance with the terms of the Warrant.

(e) Pursuant to this exercise, the Company shall deliver to the holder _____ Warrant Shares in accordance with the terms of the Warrant.

(f) Following this exercise, the Warrant shall be exercisable to purchase a total of _____ Warrant Shares.

(g) Notwithstanding anything to the contrary contained herein, this Exercise Notice shall constitute a representation by the Holder that, after giving effect to the exercise provided for in this Exercise Notice, the Holder (together with its affiliates) will not have beneficial ownership (together with the beneficial ownership of such Person's affiliates) of a number of shares of Common Stock which exceeds the Maximum Percentage of the total outstanding shares of Common Stock as determined pursuant to the provisions of Section 11 of the Warrant.

(h) The Holder represents that, as of the date of exercise:

i. the Warrant Shares being purchased pursuant to this Exercise Notice are being acquired solely for the Holder's own account and not as a nominee for any other party, for investment, and not with a view toward distribution or resale; and

ii. the Holder is an " **accredited investor** " as such term is defined in Rule 501(a)(1) of Regulation D promulgated by the Securities and Exchange Commission under the Securities Act.

(i) If the Holder cannot make the representations required in Section (f)(ii) , above, because it is factually incorrect, it shall be a condition to the exercise of the Warrant that the Company receive such other representations as the Company considers necessary, acting reasonably, to assure the Company that the issuance of securities upon exercise of this Warrant shall not violate any United States or other applicable securities laws.

Dated: _____, _____

Name of Holder: _____
(Print)

By: _____
Name: _____
Title: _____
(Signature must conform in all respects to name of holder as specified on the face of the Warrant)

FORM OF ASSIGNMENT

[To be completed and signed only upon transfer of Warrant]

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto _____ the right represented by the within Warrant to purchase _____ shares of Common Stock of Manhattan Pharmaceuticals, Inc. to which the within Warrant relates and appoints _____ attorney to transfer said right on the books of Manhattan Pharmaceuticals, Inc. with full power of substitution in the premises.

The undersigned transferee agrees to be bound by the covenants of the Warrant Holder during the term of the Warrant.

The undersigned transferee agrees represents and warrants that:

i. the Warrant Shares being purchased pursuant to this Assignment are being acquired solely for the transferee's own account and not as a nominee for any other party, for investment, and not with a view toward distribution or resale; and

ii. the undersigned transferee is an " **accredited investor** " as such term is defined in Rule 501(a)(1) of Regulation D promulgated by the Securities and Exchange Commission under the Securities Act.

If the undersigned transferee cannot make the representations required in clause (ii) above, above, because it is factually incorrect, it shall be a condition to the transfer of the Warrant that the Company receive such other representations as the Company considers necessary, acting reasonably, to assure the Company that the transfer this Warrant shall not violate any United States or other applicable securities laws.

Dated: _____, _____

_____
(Signature must conform in all respects to name of holder as specified on the face of the Warrant)

_____
Address of Transferee

_____

_____

In the presence of:

_____
Signature of Transferee

_____

_____

Exhibit 4.10

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS, OR AN OPINION OF COUNSEL, IN A FORM ACCEPTABLE TO THE COMPANY, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR APPLICABLE STATE SECURITIES LAWS OR UNLESS SOLD PURSUANT TO RULE 144 UNDER SAID ACT.

MANHATTAN PHARMACEUTICALS, INC.

WARRANT

Warrant No. MPI-__ Dated: _____

Manhattan Pharmaceuticals, Inc., a Delaware corporation (the " **Company** "), hereby certifies that, for value received, [_____] or its, his or her Permitted Transferees (as hereinafter defined) (the " **Holder** "), is entitled to purchase from the Company up to a total of [_____] shares of common stock, $0.001 par value per share (the " **Common Stock** "), of the Company (each such share, a " **Warrant Share** " and all such shares issuable under the warrants, the " **Warrant Shares** ") at an exercise price of $0.08 (as adjusted from time to time as provided in Section 9 , the " **Exercise Price** "), at any time and from the date hereof and through February __, 2015 (the " **Expiration Date** "), and subject to the following terms and conditions.

This Warrant (" **Warrant** ") is one of a series of warrants to be issued pursuant to that certain Placement Agency Agreement, dated December 28, 2009, by and between the Company and National Securities Corporation, as the same may be amended or supplemented from time to time.

1. Intentionally Left Blank .

2. Registration of Warrant . The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the " **Warrant Register** "), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

3. Registration of Transfers . The Company shall register the transfer and/or assignment of any portion of this Warrant (a " **Permitted Transferee** ") in the Warrant Register, upon surrender of this Warrant, with the Form of Assignment attached hereto duly completed and signed, to the Company's transfer agent or to the Company at its address specified herein. Upon any such registration or transfer, a new warrant to purchase Common Stock, in substantially the form of this Warrant (any such new warrant, a " **New Warrant** "), evidencing the portion of this Warrant so transferred shall be issued to the Permitted Transferee and a New Warrant evidencing the remaining portion of this Warrant not so transferred, if any, shall be issued to the transferring Holder. The acceptance of the New Warrant by the Permitted Transferee thereof shall be deemed the acceptance by such Permitted Transferee of all of the rights and obligations of a holder of a Warrant.

4. Exercise and Duration of Warrants .

(a) This Warrant shall be exercisable by the registered Holder at any time and from time to time on or after the date hereof to and including the Expiration Date. At 5:00 P.M., New York City time on the Expiration Date, the portion of this Warrant not exercised prior thereto shall be and become void and of no value and this Warrant shall be terminated and no longer be outstanding.

(b) The Holder may exercise this Warrant by delivering to the Company (i) an exercise notice, in the form attached hereto (the " **Exercise Notice** "), appropriately completed and duly signed, and (ii) payment of the Exercise Price for the number of Warrant Shares as to which this Warrant is being exercised (which may take the form of a "Cashless Exercise" if so indicated in the Exercise Notice pursuant to Section 10 below), and the date such items are delivered to the Company (as determined in accordance with the notice provisions hereof) is an " **Exercise Date** ."

(c) Exercise Disputes . In the case of any dispute with respect to the number of shares to be issued upon exercise of this Warrant, the Company shall promptly issue such number of shares of Common Stock that is not disputed and shall submit the disputed determinations or arithmetic calculations to the Holder via fax (or, it the Holder has not provided the Company with a fax number, by overnight courier) within five (5) Business Days of receipt of the Holder's election to purchase Warrant Shares. If the Holder and the Company are unable to agree as to the determination of the Exercise Price within five (5) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall in accordance with this Section, submit via facsimile the disputed determination to its independent auditor. The Company shall cause its independent auditor to perform the determinations or calculations and notify the Company and the Holder of the results promptly, in writing and in sufficient detail to give the Holder and the Company a clear understanding of the issue. The determination by the Company's independent auditor shall be binding upon all parties absent manifest error. The Company shall then on the next Business Day instruct its transfer agent to issue certificate(s) representing the appropriate number of Warrant Shares of Common Stock in accordance with the independent auditor's determination and this Section. The prevailing party shall be entitled to reimbursement of all fees and expenses of such determination and calculation.

5. Delivery of Warrant Shares .

(a) Upon exercise of this Warrant, the Company shall promptly (but in no event later than five (5) Trading Days after the Exercise Date) issue or cause to be issued and cause to be delivered to or upon the written order of the Holder and in such name or names as the Holder may designate, a certificate for the Warrant Shares to which the Holder is entitled upon such exercise, free of restrictive legends unless a registration statement covering the resale of the Warrant Shares and naming the Holder as a selling stockholder thereunder is not then effective and the Warrant Shares are not freely transferable pursuant to Rule 144 under the Securities Act. To the extent the Warrant Shares may be issued free of restrictive legends as set forth above, upon request of the Holder, the Company shall use its best efforts to deliver Warrant Shares hereunder electronically through the Depository Trust Corporation or another established clearing corporation performing similar functions. For the purposes hereof, the term " **Trading Day** " means (a) any day on which the Common Stock is listed or quoted and traded on its primary trading market and/or quotation system, as the case may be, (b) if the Common Stock is not then listed or quoted and traded on any trading market, then a day on which trading occurs on the Nasdaq Global Market (or any successor thereto), or (c) if trading ceases to occur on the Nasdaq Global Market (or any successor thereto), any Business Day.

(b) This Warrant is exercisable, either in its entirety or, from time to time, for a portion of the number of Warrant Shares. Upon surrender of this Warrant following one or more partial exercises, the Company shall issue or cause to be issued, at its expense, a New Warrant evidencing the right to purchase the remaining number of Warrant Shares.

(c) The Company's obligations to issue and deliver Warrant Shares in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, the recovery of any judgment against any person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other person of any obligation to the Company or any violation or alleged violation of law by the Holder or any other person, and irrespective of any other circumstance which might otherwise limit such obligation of the Company to the Holder in connection with the issuance of Warrant Shares. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

6. Charges, Taxes and Expenses . Issuance and delivery of certificates for shares of Common Stock upon exercise of this Warrant shall be made without charge to the Holder for any issue or transfer tax, withholding tax, transfer agent fee or other incidental tax or expense in respect of the issuance of such certificates, all of which taxes and expenses shall be paid by the Company; provided , however , that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the registration of any certificates for Warrant Shares or Warrants in a name other than that of the Holder. The Holder shall be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

7. Replacement of Warrant . If this Warrant is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation hereof, or in lieu of and substitution for this Warrant, a New Warrant, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction and customary and reasonable bond or indemnity, if requested. Applicants for a New Warrant under such circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable third-party costs as the Company may prescribe.

8. Reservation of Warrant Shares . The Company covenants that it will at all times reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Common Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of this Warrant as herein provided, the number of Warrant Shares which are then issuable and deliverable upon the exercise of this entire Warrant, free from preemptive rights or any other contingent purchase rights of persons other than the Holder (after giving effect to the adjustments and restrictions of Section 9 , if any). The Company covenants that all Warrant Shares so issuable and deliverable shall, upon issuance and the payment of the applicable Exercise Price in accordance with the terms hereof, be duly and validly authorized, issued and fully paid and nonassessable. The Company will take all such action as may be necessary to assure that such shares of Common Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system upon which the Common Stock may be listed.

9. Certain Adjustments . The Exercise Price and number of Warrant Shares issuable upon exercise of this Warrant are subject to adjustment from time to time as set forth in this Section 9 .

(a) Stock Dividends and Splits . If the Company, at any time while this Warrant is outstanding, (i) pays a stock dividend on its Common Stock or otherwise makes a distribution on any class of capital stock that is payable in shares of Common Stock, (ii) subdivides outstanding shares of Common Stock into a larger number of shares, or (iii) combines outstanding shares of Common Stock into a smaller number of shares, then in each such case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, and any adjustment pursuant to clause (ii) or (iii) of this paragraph shall become effective immediately after the effective date of such subdivision or combination.

(b) Additional Issuances of Equity Securities . If the Company, at any time while this Warrant is outstanding, shall issue or sell any Equity Securities (as defined below) at an effective price per share less than the then effective Exercise Price (such lower price, the " **Base Share Price** " and such issuances collectively, a " **Dilutive Issuance** "), as adjusted hereunder (if the holder of the Equity Securities so issued shall at any time, whether by operation of purchase price adjustments, reset provisions, floating conversion, exercise or exchange prices or otherwise, or due to warrants, options or rights per share which is issued in connection with such issuance, be entitled to receive shares of Common Stock at an effective price per share which is less than the then effective Exercise Price, such issuance shall be deemed to have occurred for less than the then effective Exercise Price on such date of the Dilutive Issuance), then, the Exercise Price shall be reduced and only reduced to equal the Base Share Price. Notwithstanding the foregoing, no adjustments shall be made, paid or issued under this Section 9(b) in respect of Exempt Issuances (as defined below). The Company shall notify the Holder in writing as promptly as reasonably possible following the issuance of any Equity Securities subject to this section, indicating therein the applicable issuance price, or of applicable reset price, exchange price, conversion price and other pricing terms (such notice the " **Dilutive Issuance Notice** "). For purposes of clarification, whether or not the Company provides a Dilutive Issuance Notice pursuant to this Section 9(b) , upon the occurrence of any Dilutive Issuance while this Warrant is outstanding, after the date of such Dilutive Issuance the Holder is entitled to the Base Share Price regardless of whether the Holder accurately refers to the Base Share Price in the Exercise Notice.

For purposes of this Section 9(b) , the following definitions shall apply:

" **Common Stock Equivalents** " means any securities of the Company or its subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

" **Equity Securities** " means (i) Common Stock and (ii) Common Stock Equivalents.

" **Exempt Issuance** " means (i) any Equity Securities issued or issuable pursuant to options, warrants or other rights issued or issuable to employees, officers or directors of, or consultants or advisors to the Company or any subsidiary, pursuant to equity incentive plans or other employee benefit arrangements; (ii) any Equity Securities issued or issuable pursuant to any rights or agreements, options, warrants or convertible securities outstanding as of the issuance date of this Warrant; (iii) any Equity Securities issued or issuable for consideration other than cash pursuant to a merger, consolidation, strategic alliance, acquisition or similar business combination; (iv) any Equity Securities issued or issuable in connection with any stock split, stock dividend, distribution or recapitalization by the Company; (v) any Equity Securities issued or issuable pursuant to any equipment loan or leasing arrangement, real property leasing arrangement, or debt financing from a bank or similar financial or lending institution; and (vi) any Equity Securities issued or issuable to Holder, the Placement Agent or any of their respective affiliates in connection with the Offering or any Equity Securities issued to holders of the Warrants issued in the Offering.

(c) Fundamental Transactions . If at any time during the term of this Warrant the Company proposes to engage in a "Fundamental Transaction" (as hereinafter defined) then, and in any one or more of such cases, the Company will give to the Holder at least 10 days' prior written notice of the date on which the books of the Company will close or a record will be taken for determining rights to vote with respect to such Fundamental Transaction. Such notice will describe the nature of the Fundamental Transaction, the date on which the holders of the Common Shares will be entitled thereto, and such notice will also specify the date on which the holders of the Common Shares will be entitled to exchange the Common Shares for securities or other property deliverable upon the consummation of the Fundamental Transaction. A " **Fundamental Transaction** " is any (i) merger or consolidation of the Company with or into (whether or not the Company is the surviving corporation) another person, (ii) any sale, assignment, transfer, conveyance or other disposition by the Company of all or substantially all of its assets in one or a series of related transactions; provided , however , that for avoidance of doubt, the granting of a lien on all or substantially all of the Company's assets as collateral shall not be deemed a Fundamental Transaction hereunder, (iii) purchase, tender or exchange offer by the Company (or to which the Company is a party) that will be for more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the person or persons making or party to, or associated or affiliated with the persons making or party to, such purchase, tender or exchange offer, (iv) business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) requiring shareholder approval with another person whereby such other person acquires more than the 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other person or other persons making or party to, or associated or affiliated with the other persons making or party to, such stock purchase agreement or other business combination), or (v) reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock covered by Section 9(a) above).

(d) The Company will not by reorganization, transfer of assets, consolidation, merger, dissolution, or otherwise, avoid or seek to avoid observance or performance of any of the terms of this Section 9 , but will at all times in good faith assist in the carrying out and performance of all provisions of this Section 9 in order to protect the rights of the Holder against impairment.

(e) Number of Warrant Shares . Simultaneously with any adjustment to the Exercise Price pursuant to paragraph (a) or (b) of this Section, the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately, as applicable, so that after such adjustment the aggregate Exercise Price payable hereunder for the increased or decreased, as applicable, number of Warrant Shares shall be the same as the aggregate Exercise Price in effect immediately prior to such adjustment.

(f) Calculations . All calculations under this Section 9 shall be made to the nearest cent or the nearest share, as applicable. The number of shares of Common Stock outstanding at any given time shall not include shares owned or held by or for the account of the Company, and the disposition of any such shares shall be considered an issue or sale of Common Stock.

(g) Notice of Adjustments . Upon the occurrence of each adjustment pursuant to this Section 9 , the Company at its expense will promptly compute such adjustment in accordance with the terms of this Warrant and prepare a certificate setting forth such adjustment, including a statement of the adjusted Exercise Price and adjusted number or type of Warrant Shares or other securities issuable upon exercise of this Warrant (as applicable), describing the transactions giving rise to such adjustments and showing in detail the facts upon which such adjustment is based. Upon written request, the Company will promptly deliver a copy of each such certificate to the Holder and to the Company's Transfer Agent.

(h) Notice of Corporate Events . If the Company (i) declares a dividend or any other distribution of cash, securities or other property in respect of its Common Stock, including without limitation any granting of rights or warrants to subscribe for or purchase any capital stock of the Company or any Subsidiary, (ii) authorizes or approves, enters into any agreement contemplating or solicits stockholder approval for any Fundamental Transaction or (iii) authorizes the voluntary dissolution, liquidation or winding up of the affairs of the Company, then the Company shall deliver to the Holder a notice describing the material terms and conditions of such transaction, at least ten calendar days prior to the applicable record or effective date on which a person would need to hold Common Stock in order to participate in or vote with respect to such transaction, and the Company will take all steps reasonably necessary in order to insure that the Holder is given the practical opportunity to exercise this Warrant prior to such time so as to participate in or vote with respect to such transaction; provided , however , that the failure to deliver such notice or any defect therein shall not affect the validity of the corporate action required to be described in such notice.

10. Payment of Exercise Price . The Holder shall pay the Exercise Price in immediately available funds (a " **Cash Exercise** "); or the Holder may satisfy its obligation to pay the Exercise Price through a " **Cashless Exercise** ," in which event the Company shall issue to the Holder the number of Warrant Shares determined as follows:

$$X = Y [(A-B)/A]$$

where:

X = the number of Warrant Shares to be issued to the Holder.

Y = the number of Warrant Shares with respect to which this Warrant is being exercised (prior to cashless exercise).

A = the average of the Closing Prices for the five (5) Trading Days immediately prior to (but not including) the Exercise Date.

B = the Exercise Price.

For purposes of this Section 10 , " **Closing Prices** " for any date, shall mean the closing price per share of the Common Stock for such date (or the nearest preceding date) on the primary trading market on which the Common Stock is then listed or quoted.

For purposes of Rule 144 promulgated under the Securities Act, it is intended, understood and acknowledged that the Warrant Shares issued in a cashless exercise transaction shall be deemed to have been acquired by the Holder, and the holding period for the Warrant Shares shall be deemed to have commenced, on the date this Warrant was originally issued to the Holder (provided the Securities and Exchange Commission continues to take the position that such treatment is proper at the time of such exercise).

11. Limitation on Exercise . Notwithstanding anything to the contrary contained herein, the number of shares of Common Stock that may be acquired by the Holder upon any exercise of this Warrant (or otherwise in respect hereof) shall be limited to the extent necessary to insure that, following such exercise (or other issuance), the total number of shares of Common Stock then beneficially owned by such Holder and its Affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the " **Exchange Act** "), does not exceed 4.999% (the " **Maximum Percentage** ") of the total number of issued and outstanding shares of Common Stock (including for such purpose the shares of Common Stock issuable upon such exercise). For such purposes, "beneficial ownership" shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. The Company's obligation to issue shares of Common Stock in excess of the limitation referred to in this Section shall be suspended (and shall not terminate or expire notwithstanding any contrary provisions hereof) until such time, if any, as such shares of Common Stock may be issued in compliance with such limitation, but in no event later than the Expiration Date. By written notice to the Company, the Holder may waive the provisions of this Section or increase or decrease the Maximum Percentage to any other percentage specified in such notice, but any such waiver or increase will not be effective until the 61st day after such notice is delivered to the Company.

12. Fractional Shares . The Company shall not be required to issue or cause to be issued fractional Warrant Shares on the exercise of this Warrant. In lieu of any fractional shares which would, otherwise be issuable, subject to Section 11 , the Company shall pay the Holder entitled to such fractional Warrant Share a sum in cash equal to such fraction (calculated to the nearest 1/100 th of a Warrant Share) multiplied by the then effective Exercise Price.

13. Notices . Any and all notices or other communications or deliveries hereunder (including without limitation any Exercise Notice) shall be in writing and shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in the Subscription Agreement prior to 5:00 p.m. (New York City time) on a Trading Day, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified in the Subscription Agreement on a day that is not a Trading Day or later than 5:00 p.m. (New York City time) on any Trading Day, (iii) the Trading Day following the date of mailing if sent by nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. The address for such notices or communications shall be as set forth in the Subscription Agreement.

14. Warrant Agent . The Company shall serve as warrant agent under this Warrant. Upon thirty (30) days' notice to the Holder, the Company may appoint a new warrant agent. Any corporation and/or other entity into which the Company or any new warrant agent may be merged or any corporation resulting from any consolidation to which the Company or any new warrant agent shall be a party shall be a successor warrant agent under this Warrant without any further act. Any such successor warrant agent shall promptly cause notice of its succession as warrant agent to be mailed (by first class mail, postage prepaid) to the Holder at the Holder's last address as shown on the Warrant Register.

15. Registration of Warrant Shares . The Warrant Shares shall be entitled to registration rights as set forth in that certain Registration Rights Agreement, dated as of February [26], 2010.

16. Miscellaneous .

(a) Subject to the restrictions on transfer set forth on the first page hereof, this Warrant may be transferred or assigned by the Holder to a Permitted Transferee pursuant to Section 3 provided, that, among other things, the Permitted Transferee covenants to be bound by the terms hereof. This Warrant may not be assigned by the Company, except to a successor in the event of a Fundamental Transaction. This Warrant shall be binding on and inure to the benefit of the parties hereto and their respective successors and assigns. Subject to the preceding sentence, nothing in this Warrant shall be construed to give to any person other than the Company and the Holder any legal or equitable right, remedy or cause of action under this Warrant.

(b) The Company will not, by amendment of its governing documents or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, seek to call or redeem this Warrant or avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder against dilution or other impairment. Without limiting the generality of the foregoing, the Company (i) will not increase the par value of any Warrant Shares above the amount payable therefor on such exercise, (ii) will take all such action as may be reasonably necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares, free from all taxes, liens, security interests, encumbrances, preemptive or similar rights and charges of stockholders (other than those imposed by the Holder), on the exercise of the Warrant, and (iii) will not close its stockholder books or records in any manner which interferes with the timely exercise of this Warrant.

(c) Remedies; Specific Performance . The Company acknowledges and agrees that there would be no adequate remedy at law to the Holder of this Warrant in the event of any default or threatened default by the Company in the performance of or compliance with any of the terms of this Warrant and accordingly, the Company agrees that, in addition to any other remedy to which the Holder may be entitled at law or in equity, the Holder shall be entitled to seek to compel specific performance of the obligations of the Company under this Warrant, without the posting of any bond, in accordance with the terms and conditions of this Warrant in any court of the United States or any State thereof having jurisdiction, and if any action should be brought in equity to enforce any of the provisions of this Warrant, the Company shall not raise the defense that there is an adequate remedy at law. Except as otherwise provided by law, a delay or omission by the Holder hereof in exercising any right or remedy accruing upon any such breach shall not impair the right or remedy or constitute a waiver of or acquiescence in any such breach. No remedy shall be exclusive of any other remedy. All available remedies shall be cumulative.

(d) Amendments and Waivers . The Company may, without the consent of the Holder (but with written notice to the Holder), by supplemental agreement or otherwise, (i) make any changes or corrections in this Agreement that are required to cure any ambiguity or to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein or (ii) add to the covenants and agreements of the Company for the benefit of the Holder (including, without limitation, reduce the Exercise Price or extend the Expiration Date), or surrender any rights or power reserved to or conferred upon the Company in this Agreement; provided that, in the case of (i) or (ii), such changes or corrections shall not adversely affect the interests of Holder in any material respect. This Warrant may also be amended or waived with the consent of the Company and the Holder. If a new warrant agent is appointed by the Company, it shall at the request of the Company, and without need of independent inquiry as to whether such supplemental agreement is permitted by the terms of this Section 16(d) , join with the Company in the execution and delivery of any such supplemental agreements, but shall not be required to join in such execution and delivery for such supplemental agreement to become effective.

(e) Governing Law; Venue; Waiver Of Jury Trial . This Warrant shall be governed by and construed exclusively in accordance with the internal laws of the State of New York without regard to the conflicts of laws principles thereof. The parties hereto hereby expressly and irrevocably agree that any suit or proceeding arising directly and/or indirectly pursuant to, arising out of or under this Warrant, shall be brought solely and exclusively in a federal or state court located in the City, County and State of New York. By its execution hereof, the parties hereby expressly covenant and irrevocably submit to the in personam jurisdiction of the federal and state courts located in the City, County and State of New York and agree that any process in any such action may be served upon any of them personally, or by certified mail or registered mail upon them or their agent, return receipt requested, with the same full force and effect as if personally served upon them in New York City. The parties hereto expressly and irrevocably waive any claim that any such jurisdiction is not a convenient forum for any such suit or proceeding and any defense or lack of in personam jurisdiction with respect thereto. In the event of any such action or proceeding (including, but not limited to, any motions made), the party prevailing therein shall be entitled to payment from the other party hereto of its reasonable counsel fees and disbursements. The Company and Holder hereby waive all rights to a trial by jury.

(f) Headings The headings herein are for convenience only, do not constitute a part of this Warrant and shall not be deemed to limit or affect any of the provisions hereof.

(g) Partial Invalidity. In case any one or more of the provisions of this Warrant shall be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Warrant shall not in any way be affected or impaired thereby and the parties will attempt in good faith to agree upon a valid and enforceable provision which shall be a commercially reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Warrant.

IN WITNESS WHEREOF , the Company has caused this Warrant to be duly executed by its authorized officer as of the date first indicated above.

MANHATTAN PHARMACEUTICALS, INC.

By: _____

Name: Michael McGuinness
Title: Chief Financial Officer

FORM OF EXERCISE NOTICE

(To be executed by the Holder to exercise the right to purchase shares of Common Stock under the foregoing Warrant)

To: MANHATTAN PHARMACEUTICALS, INC.

The undersigned is the Holder of Warrant No. _____ (the " **Warrant** ") issued by Manhattan Pharmaceuticals, Inc., a Delaware corporation (the " **Company** "). Capitalized terms used herein and not otherwise defined have the respective meanings set forth in the Warrant.

(a) The Warrant is currently exercisable to purchase a total of _____ Warrant Shares.

(b) The undersigned Holder hereby exercises its right to purchase _____ Warrant Shares pursuant to the Warrant.

(c) The holder shall make payment of the Exercise Price as follows (check one):

_____ "Cash Exercise" under Section 10

_____ "Cashless Exercise" under Section 10

(d) If the holder is making a Cash Exercise, the holder shall pay the sum of $_____ to the Company in accordance with the terms of the Warrant.

(e) Pursuant to this exercise, the Company shall deliver to the holder _____ Warrant Shares in accordance with the terms of the Warrant.

(f) Following this exercise, the Warrant shall be exercisable to purchase a total of _____ Warrant Shares.

(g) Notwithstanding anything to the contrary contained herein, this Exercise Notice shall constitute a representation by the Holder that, after giving effect to the exercise provided for in this Exercise Notice, the Holder (together with its affiliates) will not have beneficial ownership (together with the beneficial ownership of such person's affiliates) of a number of shares of Common Stock which exceeds the Maximum Percentage of the total outstanding shares of Common Stock as determined pursuant to the provisions of Section 11 of the Warrant.

(h) The Holder represents that, as of the date of exercise:

i. the Warrant Shares being purchased pursuant to this Exercise Notice are being acquired solely for the Holder's own account and not as a nominee for any other party, for investment, and not with a view toward distribution or resale; and

ii. the Holder is an " **accredited investor** " as such term is defined in Rule 501(a)(1) of Regulation D promulgated by the Securities and Exchange Commission under the Securities Act.

(i) If the Holder cannot make the representations required in Section (f)(ii) , above, because it is factually incorrect, it shall be a condition to the exercise of the Warrant that the Company receive such other representations as the Company considers necessary, acting reasonably, to assure the Company that the issuance of securities upon exercise of this Warrant shall not violate any United States or other applicable securities laws.

Dated: _____, _____

Name of Holder: _____
(Print)

By: _____
Name: _____
Title: _____
(Signature must conform in all respects to name of holder as specified on the face of the Warrant)

FORM OF ASSIGNMENT

[To be completed and signed only upon transfer of Warrant]

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto _____ the right represented by the within Warrant to purchase _____ shares of Common Stock of Manhattan Pharmaceuticals, Inc. to which the within Warrant relates and appoints _____ attorney to transfer said right on the books of Manhattan Pharmaceuticals, Inc. with full power of substitution in the premises.

The undersigned transferee agrees to be bound by the covenants of the Warrant Holder during the term of the Warrant.

The undersigned transferee agrees represents and warrants that:

i. the Warrant Shares being purchased pursuant to this Assignment are being acquired solely for the transferee's own account and not as a nominee for any other party, for investment, and not with a view toward distribution or resale; and

ii. the undersigned transferee is an " **accredited investor** " as such term is defined in Rule 501(a)(1) of Regulation D promulgated by the Securities and Exchange Commission under the Securities Act.

If the undersigned transferee cannot make the representations required in clause (ii) above, above, because it is factually incorrect, it shall be a condition to the transfer of the Warrant that the Company receive such other representations as the Company considers necessary, acting reasonably, to assure the Company that the transfer this Warrant shall not violate any United States or other applicable securities laws.

Dated: _____, _____

_____
(Signature must conform in all respects to name of holder as specified on the face of the Warrant)

_____
Address of Transferee

_____

_____

In the presence of:

_____
Signature of Transferee

_____

Exhibit 10.35

MANHATTAN PHARMACEUTICALS, INC.

Subscription Agreement

SUBSCRIPTION AGREEMENT

Manhattan Pharmaceuticals, Inc.
48 Wall Street, Suite 1100
New York, NY 10005

Ladies and Gentlemen:

1. **Subscription.** The undersigned (the "Purchaser"), intending to be legally bound, hereby irrevocably agrees to purchase from Manhattan Pharmaceuticals, Inc., a Delaware corporation (the "Company"), the number of units (the "Units") of the Company set forth on the signature page hereof at a purchase price of $25,000 per Unit. This subscription is submitted to you in accordance with and subject to the terms and conditions described in this Subscription Agreement and the Confidential Private Placement Memorandum, dated December 28, 2009, as may amended or supplemented from time to time, including all attachments, schedules and exhibits thereto (the "Memorandum," and, together with this Subscription Agreement, the "Offering Documents") and relating to the offering (the "Offering") by the Company of a minimum of 100 Units ($2,500,000) and a maximum of 160 Units ($4,000,000) with the right at the sole discretion of the Company and the Placement Agent to increase the maximum by an additional 40 Units ($1,000,000) (the "Overallotment"). Each Unit is being offered at a price of $25,000 per Unit and consists of (i) 357,143 shares of common stock, $0.001 par value per share (the "Common Stock" or "Shares") of the Company and (ii) 535,714 warrants (each a "Warrant" and collectively the "Warrants"), each of which will entitle the holder to purchase one additional share of Common Stock (each a "Warrant Share" and collectively the "Warrant Shares"). The Shares, the Warrants and the Warrant Shares may be collectively referred to in this Subscription Agreement as the "Securities". The Units are being offered on an exclusive basis through National Securities Corporation (the "Placement Agent"). The minimum subscription for a Purchaser in the Offering is one Unit ($25,000); *provided , however* , that Placement Agent and the Company, in their sole discretion, may waive such minimum subscription requirement from time to time.

2. **Payment.** The Purchaser encloses herewith a check payable to, or will immediately make a wire transfer payment to **"** Signature Bank **,** Escrow Agent for Manhattan Pharmaceuticals, Inc." in the full amount of the purchase price of the Units being subscribed for. Such funds will be held for the Purchaser's benefit, and will be returned promptly, without interest or offset if this Subscription Agreement is not accepted by the Company or the Offering is terminated pursuant to its terms or by the Company or the Placement Agent. Together with a check for, or wire transfer of, the full purchase price, the Purchaser is delivering (i) a completed and executed Omnibus Signature Page to this Subscription Agreement and the Registration Rights Agreement and (ii) an Investor Questionnaire and Investor Profile, which is annexed hereto.

3. **Deposit of Funds.** All payments made as provided in Section 2 hereof shall be deposited by the Company or the Placement Agent as soon as practicable with the Escrow Agent, in a non-interest-bearing escrow account (the "Escrow Account") until the earliest to occur of (a) the occurrence of a closing, the first of which shall not occur until $2,500,000 of Units are sold (the "First Closing"), (b) the rejection of such subscription, or (c) the termination of the Offering by the Company or the Placement Agent. The Company and the Placement Agent may continue to offer and sell the Units and conduct additional closings (each, a "Closing") for the sale of additional Units after the First Closing and until the termination of the Offering. In the event that the Company does not effect a Closing (as defined below), on or before February 28, 2010 (the "Initial Offering Period"), which period may be extended by the Company and the Placement Agent, in their mutual discretion to a date no later than March 28, 2010 (the "Termination Date", with this additional period, together with the Initial Offering Period, being referred to herein as the "Offering Period"), the Company will refund all subscription funds, without deduction and/or interest accrued thereon, and will return the subscription documents to each Purchaser. If the Company and/or the Placement Agent rejects a subscription, either in whole or in part (which decision is in their sole discretion), the rejected subscription funds or the rejected portion thereof will be returned promptly to such Purchaser without interest accrued thereon.

4. **Acceptance of Subscription.** The Purchaser understands and agrees that the Company and the Placement Agent, in their discretion reserve the right to accept or reject this or any other subscription for Units, in whole or in part, notwithstanding prior receipt by the Purchaser of notice of acceptance of this or any other subscription. The Company shall have no obligation hereunder until the Company shall execute and deliver to the Purchaser an executed copy of this Subscription Agreement. If this subscription is rejected in whole, or the Offering is terminated, all funds received from the Purchaser will be returned without interest, penalty, expense or deduction, and this Subscription Agreement shall thereafter be of no further force or effect. If this subscription is rejected in part, the funds for the rejected portion of this subscription will be returned without interest, penalty, expense or deduction, and this Subscription Agreement will continue in full force and effect to the extent this subscription was accepted.

5. **Representations and Warranties of the Purchaser.** The Purchaser hereby acknowledges, represents, warrants, and agrees as follows:

(a) None of the Units or the Securities contained in the Units offered pursuant to the Offering Documents are registered under the Securities Act of 1933, as amended (the "Securities Act"), or any state securities laws. The Purchaser understands that the offering and sale of the Units contemplated hereby is intended to be exempt from registration under the Securities Act, by virtue of Section 4(2) thereof and the provisions of Regulation D promulgated thereunder, based, in part, upon the truth and accuracy of, and compliance with, representations, warranties and agreements of the Purchaser contained in this Subscription Agreement;

(b) The Purchaser and the Purchaser's attorney, accountant, purchaser representative and/or tax advisor, if any (collectively, the "Advisors"), acknowledges that it has received the Offering Documents, either in hard copy or electronically, and all other documents requested by the Purchaser, has carefully reviewed them and understands the information contained therein, and the Purchaser and the Advisors, if any, prior to the execution of this Subscription Agreement, have had access to the same kind of information as would be available in a registration statement filed by the Company under the Securities Act. Purchaser's decision to enter into this Subscription Agreement and the other Transaction Documents (as defined herein) has been made based solely on the independent evaluation of the Purchaser and its Advisors, if any;

(c) Neither the Securities and Exchange Commission (the "SEC") nor any state securities commission or other regulatory body has approved the Units, Shares or Warrants or passed upon or endorsed the merits of the Offering or confirmed the accuracy or determined the adequacy of the Offering Documents. Any representation to the contrary is a criminal offense. The Offering Documents have not been reviewed by any federal, state or other regulatory authority. The Units, and the Securities are subject to restrictions on transferability and resale and may not be transferred or resold except as permitted under the Securities Act, and the applicable state securities laws, pursuant to registration or exemption therefrom;

(d) All documents, records, and books pertaining to the investment in the Units (including, without limitation, the Offering Documents) have been made available, subject to certain confidentiality restrictions, for inspection by the Purchaser and its Advisors, if any;

(e) The Purchaser and its Advisors, if any, have had a reasonable opportunity to ask questions of and receive answers from a person or persons acting on behalf of the Company concerning the offering of the Units and the business, financial condition, and results of operations of the Company, and all such questions have been answered by representatives of the Company to the full satisfaction of the Purchaser and its Advisors, if any, and the Purchaser and its Advisors have had access, through the Memorandum and/or the EDGAR system, to true and complete copies of the Company's most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2008 (the " **10-K** ") and all other reports filed by the Company pursuant to the Securities Exchange Act of 1934, as amended, since the filing of the 10-K and prior to the date hereof and have reviewed such filings;

(f) In evaluating the suitability of an investment in the Company, the Purchaser has not relied upon any representation or other information (oral or written) other than as stated in the Offering Documents or as contained in documents so furnished to the Purchaser or its Advisors, if any, by the Company or the Placement Agent;

(g) The Purchaser is unaware of, is in no way relying on, and did not become aware of the offering of the Units directly or indirectly through or as a result of, any form of general solicitation or general advertising including, without limitation, any press release, filing with the SEC, article, notice, advertisement or other communication published in any newspaper, magazine or similar media or broadcast over television, radio or the internet, in connection with the offering and sale of the Units and is not subscribing for Units and did not become aware of the offering of the Units through or as a result of any seminar or meeting to which the Purchaser was invited by, or any solicitation of a subscription by, a person not previously known to the Purchaser in connection with investments in securities generally;

(h) The Purchaser has taken no action which would give rise to any claim by any person for brokerage commissions, finder' fees or the like relating to this Subscription Agreement or the transactions contemplated hereby (other than commissions and other compensation to be paid by the Company to the Placement Agent or as otherwise described in the Offering Documents);

(i) The Purchaser's decision to enter into this Subscription Agreement and the Registration Rights Agreement has been made based solely on the independent evaluation of the Purchaser and its own Advisors, if any, and the Purchaser, either alone or together with its Advisors, if any, has such knowledge and experience in financial, tax, and business matters, and, in particular, investments in securities, so as to enable it to utilize the information made available to it in connection with the Offering to evaluate the merits and risks of an investment in the Units and the Company and to make an informed investment decision with respect thereto;

(j) The Purchaser is not relying on the Company, the Placement Agent or any of their respective employees or agents with respect to the legal, tax, economic and related considerations of an investment in the Units, and the Purchaser has relied on the advice of, or has consulted with, only its own Advisors, if any;

(k) The Purchaser is neither a registered representative under the Financial Industry Regulatory Authority (" **FINRA** "), a member of FINRA or associated or affiliated with any member of FINRA, nor a broker-dealer registered with the SEC under the Exchange Act or engaged in a business that would require it to be so registered, nor is it an affiliate of a such a broker-dealer or any person engaged in a business that would require it to be registered as a broker-dealer. In the event such Purchaser is a member of FINRA, or associated or affiliated with a member of FINRA, such Purchaser agrees, if requested by FINRA, to sign a lock-up, the form of which shall be satisfactory to FINRA with respect to the Shares, Warrants and the Warrant Shares. Furthermore, the Purchaser is not an underwriter of the Common Stock, nor is it an affiliate of an underwriter of the Common Stock.

(l) The Purchaser is acquiring the Units solely for such Purchaser's own account for investment purposes only and not with a view to or intent of resale or distribution thereof, in whole or in part. The Purchaser has no agreement or arrangement, formal or informal, with any person to sell or transfer all or any part of the Units, the Shares, the Warrants or the Warrant Shares, and the Purchaser has no plans to enter into any such agreement or arrangement;

(m) The purchase of the Units represents a high risk capital investment and the Purchaser is able to afford an investment in a speculative venture having the risks and objectives of the Company. The Purchaser must bear the substantial economic risks of the investment in the Units indefinitely because none of the Units, the Shares, the Warrants or the Warrant Shares may be sold, hypothecated or otherwise disposed of unless subsequently registered under the Securities Act and applicable state securities laws or an exemption from such registration is available. Legends shall be placed on the Units, the Shares, the Warrants and the Warrant Shares to the effect that they have not been registered under the Securities Act or applicable state securities laws and appropriate notations thereof will be made in the Company's books. Stop transfer instructions will be placed with the transfer agent of the Shares, if any, or with the Company. There can be no assurance that there will be any market for resale of the Units, the Shares, the Warrants or the Warrant Shares. The Company has agreed that purchasers of the Units will have, with respect to the Shares and the Warrant Shares, the registration rights described in the Registration Rights Agreement in the form annexed to the Memorandum;

(n) The Purchaser has adequate means of providing for such Purchaser's current financial needs and foreseeable contingencies and has no need for liquidity of its investment in the Securities for an indefinite period of time;

(o) The Purchaser is aware that an investment in the Units involves a number of very significant risks and has carefully read and considered the matters set forth under the caption “Risk Factors” in the Offering Documents, and, in particular, acknowledges that the Company has a limited operating history and limited assets, the Company has not had any revenues from product sales to date, the Company has incurred loses since its inception in 1993, the Company is engaged in a highly competitive business and the Company's independent registered public accounting firm has included an explanatory paragraph in its opinion on the Company’s financial statements for the fiscal years ended December 31, 2008, expressing doubt as to the Company's ability to continue as a going concern;

(p) The Purchaser meets the requirements of at least one of the suitability standards for an “accredited investor” as that term is defined in Regulation D under the Securities Act, and has truthfully and accurately completed the Investor Questionnaire attached hereto;

(q) The Purchaser: (i) if a natural person, represents that the Purchaser has reached the age of 21 and has full power and authority to execute and deliver this Subscription Agreement and all other related agreements or certificates and to carry out the provisions hereof and thereof; (ii) if a corporation, partnership, or limited liability company or partnership, or association, joint stock company, trust, unincorporated organization or other entity, represents that such entity was not formed for the specific purpose of acquiring the Units, such entity is duly organized, validly existing and in good standing under the laws of the state of its organization, the consummation of the transactions contemplated hereby is authorized by, and will not result in a violation of any law applicable to it or its charter or other organizational documents, such entity has full power and authority to execute and deliver this Subscription Agreement and all other related agreements or certificates and to carry out the provisions hereof and thereof and to purchase and hold the Units and the Securities, the execution and delivery of this Subscription Agreement has been duly authorized by all necessary action, this Subscription Agreement has been duly executed and delivered on behalf of such entity and is a legal, valid and binding obligation of such entity; or (iii) if executing this Subscription Agreement in a representative or fiduciary capacity, represents that it has full power and authority to execute and deliver this Subscription Agreement in such capacity and on behalf of the subscribing individual, ward, partnership, trust, estate, corporation, or limited liability company or partnership, or other entity for whom the Purchaser is executing this Subscription Agreement, and such individual, partnership, ward, trust, estate, corporation, or limited liability company or partnership, or other entity has full right and power to perform pursuant to this Subscription Agreement and make an investment in the Company, and represents that this Subscription Agreement constitutes a legal, valid and binding obligation of such entity. The execution and delivery of this Subscription Agreement will not violate or be in conflict with any order, judgment, injunction, agreement or controlling document to which the Purchaser is a party or by which it is bound;

(r) The Purchaser and the Advisors, if any, have had the opportunity to obtain any additional information, to the extent the Company had such information in its possession or could acquire it without unreasonable effort or expense, necessary to verify the accuracy of the information contained in the Offering Documents and all documents received or reviewed in connection with the purchase of the Units and have had the opportunity to have representatives of the Company provide them with such additional information regarding the terms and conditions of this particular investment and the financial condition, results of operations, business and prospects of the Company deemed relevant by the Purchaser or the Advisors, if any, and all such requested information, to the extent the Company had such information in its possession or could acquire it without unreasonable effort or expense, has been provided by the Company to the full satisfaction of the Purchaser and the Advisors, if any;

(s) Any information which the Purchaser has heretofore furnished or is furnishing herewith to the Company or the Placement Agent is complete and accurate and may be relied upon by the Company and the Placement Agent in determining the availability of an exemption from registration under Federal and state securities laws in connection with the Offering. The Purchaser further represents and warrants that it will notify and supply corrective information to the Company and the Placement Agent immediately upon the occurrence of any change therein occurring prior to the Company's issuance of the securities underlying the Units;

(t) The Purchaser has significant prior investment experience, including investments in high risk securities. The Purchaser is knowledgeable about investments in small and thinly capitalized, development stage companies. The Purchaser has a sufficient net worth to sustain a loss of its entire investment in the Company in the event such a loss should occur. The Purchaser's overall commitment to investments which are not readily marketable is not excessive in view of the Purchaser’s net worth and financial circumstances and the purchase of the Units will not cause such commitment to become excessive. The investment is a suitable one for the Purchaser;

(u) The Purchaser is satisfied that the it has received adequate information with respect to all matters which it or the Advisors, if any, consider material to its decision to make this investment;

(v) The Purchaser acknowledges that any estimates or forward-looking statements or projections included in the Offering Documents were prepared by the Company in good faith but that the attainment of any such projections, estimates or forward-looking statements cannot be guaranteed and will not be updated by the Company and should not be relied upon;

(w) No oral or written representations have been made, or oral or written information furnished, to the Purchaser or its Advisors, if any, in connection with the Offering which are in any way inconsistent with the information contained in the Offering Documents;

(x) Within five (5) business days after receipt of a request from the Company or the Placement Agent, the Purchaser will provide such information and deliver such documents as may reasonably be necessary to comply with any and all laws and ordinances to which the Company or the Placement Agent is subject;

(y) The Purchaser's substantive relationship with the Company, the Placement Agent or subagent through which the Purchaser is subscribing for Units predates the Company's, Placement Agent's or such subagent's contact with the Purchaser regarding an investment in the Units;

(z) THE SECURITIES OFFERED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATES AND ARE BEING OFFERED AND SOLD IN RELIANCE ON EXEMPTIONS FROM THE REGISTRATION REQUIREMENTS OF SAID ACT AND SUCH LAWS. THE SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE TRANSFERRED OR RESOLD EXCEPT AS PERMITTED UNDER SAID ACT AND SUCH LAWS PURSUANT TO REGISTRATION OR EXEMPTION THEREFROM. THE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION, ANY STATE SECURITIES COMMISSION OR ANY OTHER REGULATORY AUTHORITY, NOR HAVE ANY OF THE FOREGOING AUTHORITIES PASSED UPON OR ENDORSED THE MERITS OF THIS OFFERING OR THE ACCURACY OR ADEQUACY OF THE OFFERING DOCUMENTS. ANY REPRESENTATION TO THE CONTRARY IS UNLAWFUL;

(aa) Other than with respect to the transactions contemplated herein, since the earlier to occur of (i) the time that the Purchaser was first contacted by the Company, the Placement Agent or any other person regarding an investment in the Company and (ii) the thirtieth (30th) day prior to the date hereof, neither the Purchaser nor any affiliate of the Purchaser which (i) had knowledge of the transactions contemplated hereby, (ii) has or shares discretion relating to the Purchaser's investments or trading or information concerning the Purchaser's investments, including in respect of the Securities, or (iii) is subject to the Purchaser's review or input concerning such affiliate's investments or trading decisions (collectively, "Trading Affiliates") has, directly or indirectly, nor has any person acting on behalf of, or pursuant to, any understanding with the Purchaser or Trading Affiliate effected or agreed to effect any transactions in the securities of the Company or involving the Company's securities (a "Prohibited Transaction").

(bb) The Purchaser understands that affiliates and/or employees of the Placement Agent (i) beneficially own in the aggregate approximately 7,883,085 shares of Common Stock, (ii) will receive the compensation set forth elsewhere in the Offering Documents in connection with the Offering, and (iii) may, but are not obligated to, purchase Securities in the Offering and any and all such Securities purchased shall be counted toward the Minimum Amount and the Maximum Amount.

(cc) **(For ERISA plans only)** The fiduciary of the ERISA plan represents that such fiduciary has been informed of and understands the Company's investment objectives, policies and strategies, and that the decision to invest "plan assets" (as such term is defined in ERISA) in the Company is consistent with the provisions of ERISA that require diversification of plan assets and impose other fiduciary responsibilities. The Purchaser fiduciary or Plan (a) is responsible for the decision to invest in the Company; (b) is independent of the Company or any of its affiliates; (c) is qualified to make such investment decision; and (d) in making such decision, the Purchaser fiduciary or Plan has not relied primarily on any advice or recommendation of the Company or any of its affiliates;

(dd) **The Purchaser should check the Office of Foreign Assets Control ("OFAC") website at <http://www.treas.gov/ofac> before making the following representations** . The Purchaser represents that the amounts invested by it in the Company in the Offering were not and are not directly or indirectly derived from activities that contravene federal, state or international laws and regulations, including anti-money laundering laws and regulations. Federal regulations and Executive Orders administered by OFAC prohibit, among other things, the engagement in transactions with, and the provision of services to, certain foreign countries, territories, entities and individuals. The lists of OFAC prohibited countries, territories, persons and entities can be found on the OFAC website at <http://www.treas.gov/ofac>. In addition, the programs administered by OFAC (the "OFAC Programs") prohibit dealing with individuals [1] or entities in certain countries regardless of whether such individuals or entities appear on the OFAC lists;

(ee) To the best of the Purchaser's knowledge, none of: (1) the Purchaser; (2) any person controlling or controlled by the Purchaser; (3) if the Purchaser is a privately-held entity, any person having a beneficial interest in the Purchaser; or (4) any person for whom the Purchaser is acting as agent or nominee in connection with this investment is a country, territory, individual or entity named on an OFAC list, or a person or entity prohibited under the OFAC Programs. Please be advised that the Company may not accept any amounts from a prospective investor if such prospective investor cannot make the representation set forth in the preceding paragraph. The Purchaser agrees to promptly notify the Company and the Placement Agent should the Purchaser become aware of any change in the information set forth in these representations. The Purchaser understands and acknowledges that, by law, the Company may be obligated to "freeze the account" of the Purchaser, either by prohibiting additional subscriptions from the Purchaser, declining any redemption requests and/or segregating the assets in the account in compliance with governmental regulations, and the Placement Agent may also be required to report such action and to disclose the Purchaser's identity to OFAC. The Purchaser further acknowledges that the Company may, by written notice to the Purchaser, suspend the redemption rights, if any, of the Purchaser if the Company reasonably deems it necessary to do so to comply with anti-money laundering regulations applicable to the Company and the Placement Agent or any of the Company's other service providers. These individuals include specially designated nationals, specially designated narcotics traffickers and other parties subject to OFAC sanctions and embargo programs;

(ff) To the best of the Purchaser's knowledge, none of: (1) the Purchaser; (2) any person controlling or controlled by the Purchaser; (3) if the Purchaser is a privately-held entity, any person having a beneficial interest in the Purchaser; or (4) any person for whom the Purchaser is acting as agent or nominee in connection with this investment is a senior foreign political figure [2] , or any immediate family [3] member or close associate [4] of a senior foreign political figure, as such terms are defined in the footnotes below; and

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[1] These individuals include specially designated nationals, specially designated narcotics traffickers and other parties subject to OFAC sanctions and embargo programs.

[2] A "senior foreign political figure" is defined as a senior official in the executive, legislative, administrative, military or judicial branches of a foreign government (whether elected or not), a senior official of a major foreign political party, or a senior executive of a foreign government-owned corporation. In addition, a "senior foreign political figure" includes any corporation, business or other entity that has been formed by, or for the benefit of, a senior foreign political figure.

[3] "Immediate family" of a senior foreign political figure typically includes the figure's parents, siblings, spouse, children and in-laws.

[4] A "close associate" of a senior foreign political figure is a person who is widely and publicly known to maintain an unusually close relationship with the senior foreign political figure, and includes a person who is in a position to conduct substantial domestic and international financial transactions on behalf of the senior foreign political figure.

(gg) If the Purchaser is affiliated with a non-U.S. banking institution (a "Foreign Bank"), or if the Purchaser receives deposits from, makes payments on behalf of, or handles other financial transactions related to a Foreign Bank, the Purchaser represents and warrants to the Company that: (1) the Foreign Bank has a fixed address, other than solely an electronic address, in a country in which the Foreign Bank is authorized to conduct banking activities; (2) the Foreign Bank maintains operating records related to its banking activities; (3) the Foreign Bank is subject to inspection by the banking authority that licensed the Foreign Bank to conduct banking activities; and (4) the Foreign Bank does not provide banking services to any other Foreign Bank that does not have a physical presence in any country and that is not a regulated affiliate.

6. **Representations, Warranties and Covenants of the Company.** The Company hereby represents, warrants, acknowledges and agrees as follows:

(a) The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. The Company is not in violation of any of the provisions of its certificate of incorporation, by-laws or other organizational or charter documents (the " **Internal Documents** "). Except as described in the Memorandum, the Company has no subsidiaries and does not have an equity interest in any other firm, partnership, association or other entity. The Company is qualified to transact business as a foreign corporation and is in good standing under the laws of each jurisdiction where the location of its properties or the conduct of its business makes such qualification necessary, except where the failure to be so qualified would not have a Material Adverse Effect.

(b) The Company has all power and authority to: (i) conduct its business as presently conducted and as proposed to be conducted (as described in the Memorandum); (ii) enter into and perform its obligations under this Subscription Agreement, the Warrants and the Registration Rights Agreement (collectively, the "Transaction Documents"); and (iii) issue, sell and deliver the Units. The execution and delivery of each of the Transaction Documents has been duly authorized by the necessary corporate action. This Subscription Agreement has been duly executed and when delivered will constitute, and each of the other Transaction Documents, upon due execution and delivery, will constitute, valid and binding obligations of the Company, enforceable against the Company in accordance with their respective terms (i) except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally, including the effect of statutory and other laws regarding fraudulent conveyances and preferential transfers, and except that no representation is made herein regarding the enforceability of the Company's obligations to provide indemnification and contribution remedies under the securities laws and (ii) subject to the limitations imposed by general equitable principles (regardless of whether such enforceability is considered in a proceeding at law or in equity).

8. **Registration Rights** . Purchaser shall have the registration rights described in the Registration Rights Agreement in the form annexed to the Memorandum as Exhibit C.

9. **Indemnification.** The Purchaser agrees to indemnify and hold harmless the Company, the Placement Agent, and their respective officers, directors, employees, agents, attorneys, control persons and affiliates from and against all losses, liabilities, claims, damages, costs, fees and expenses whatsoever (including, but not limited to, any and all expenses incurred in investigating, preparing or defending against any litigation commenced or threatened) based upon or arising out of any actual or alleged false acknowledgment, representation or warranty, or misrepresentation or omission to state a material fact, or breach by the Purchaser of any covenant or agreement made by the Purchaser herein or in any other document delivered in connection with this Subscription Agreement.

10. **Irrevocability; Binding Effect.** The Purchaser hereby acknowledges and agrees that the subscription hereunder is irrevocable by the Purchaser, except as required by applicable law, and that this Subscription Agreement shall survive the death or disability of the Purchaser and shall be binding upon and inure to the benefit of the parties and their heirs, executors, administrators, successors, legal representatives, and permitted assigns. If the Purchaser is more than one person, the obligations of the Purchaser hereunder shall be joint and several and the agreements, representations, warranties, and acknowledgments herein shall be deemed to be made by and be binding upon each such person and such person's heirs, executors, administrators, successors, legal representatives, and permitted assigns.

11. **Modification.** Any of the terms or provisions of this Subscription Agreement shall not be modified or waived except by an instrument in writing signed by the party against whom any such modification or waiver is sought.

12. **Immaterial Modifications to the Transaction Documents.** The Company may, at any time prior to the First Closing, amend the Transaction Documents if necessary to clarify any provision therein, without first providing notice or obtaining prior consent of the Purchaser, if, and only if, such modification is not material in any respect.

13. **Notices.** Any notice or other communication required or permitted to be given hereunder shall be in writing and shall be mailed by certified mail, return receipt requested, or delivered against receipt to the party to whom it is to be given (a) if to the Company, at the address set forth above, or (b) if to the Purchaser, at the address set forth on the signature page hereof (or, in either case, to such other address as the party shall have furnished in writing in accordance with the provisions of this Section 13). Any notice or other communication given by certified mail shall be deemed given at the time of certification thereof, except for a notice changing a party's address which shall be deemed given at the time of receipt thereof.

14. **Assignability.** This Subscription Agreement and the rights, interests and obligations hereunder are not transferable or assignable by the Purchaser and the transfer or assignment of the Units shall be made only in accordance with all applicable laws.

15. **Applicable Law** . This Subscription Agreement shall be governed by and construed under the laws of the State of New York as applied to agreements among New York residents entered into and to be performed entirely within New York. Each of the parties hereto (1) agree that any legal suit, action or proceeding arising out of or relating to this Agreement shall be instituted exclusively in the state or federal courts located in New York County, New York, (2) waive any objection which the Company may have now or hereafter to the venue of any such suit, action or proceeding, and (3) irrevocably consent to the jurisdiction of such courts in any such suit, action or proceeding. Each of the parties hereto further agrees to accept and acknowledge service of any and all process which may be served in any such suit, action or proceeding in such courts and agree that service of process upon it mailed by certified mail to its address shall be deemed in every respect effective service of process upon it, in any such suit, action or proceeding. THE PARTIES HERETO AGREE TO WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS SUBSCRIPTION AGREEMENT OR ANY DOCUMENT OR AGREEMENT CONTEMPLATED HEREBY.

16. **Blue Sky Qualification.** The purchase of Units under this Subscription Agreement is expressly conditioned upon the exemption from qualification of the offer and sale of the Units from applicable federal and state securities laws. The Company shall not be required to qualify this transaction under the securities laws of any jurisdiction and, should qualification be necessary, the Company shall be released from any and all obligations to maintain its offer, and may rescind any sale contracted, in the jurisdiction.

17. **Use of Pronouns.** All pronouns and any variations thereof used herein shall be deemed to refer to the masculine, feminine, neuter, singular or plural as the identity of the person or persons referred to may require.

18. **Confidentiality.** The Purchaser acknowledges and agrees that any information or data the Purchaser has acquired from or about the Company, not otherwise properly in the public domain, was received in confidence (the " **Confidential Information** "). Any distribution of the Confidential Information to any person other than the Purchaser named above, in whole or in part, or the reproduction of the Confidential Information, or the divulgence of any of its contents (other than to the Purchaser's tax and financial advisers, attorneys and accountants, who will likewise be required to maintain the confidentiality of the Confidential Information) is unauthorized, except that any Purchaser (and each employee, representative, or other agent of such Purchaser) may disclose to any and all persons, without limitations of any kind (except as provided in the next sentence) the tax treatment and tax structure of the transaction and all materials of any kind (including opinions or other tax analyses) that are provided to the Purchaser relating to such tax treatment and tax structure. Any such disclosure of the tax treatment, tax structure and other tax-related materials shall not be made for the purpose of offering to sell the Units offered hereby or soliciting an offer to purchase any such securities. Except as provided above with respect to tax matters, the above named Purchaser agrees not to divulge, communicate or disclose, except as may be required by law or for the performance of this Subscription Agreement, or use to the detriment of the Company or for the benefit of any other person or persons, or misuse in any way, any Confidential Information of the Company, including any scientific, technical, trade or business secrets of the Company and any scientific, technical, trade or business materials that are treated by the Company as confidential or proprietary, including, but not limited to, ideas, discoveries, inventions, developments and improvements belonging to the Company and confidential information obtained by or given to the Company about or belonging to third parties.

19. **Miscellaneous.**

(a) The Offering Documents, together with the Transaction Documents, constitute the entire agreement between the Purchaser and the Company with respect to the subject matter hereof and supersede all prior oral or written agreements and understandings, if any, relating to the subject matter hereof.

(b) The representations and warranties of the Company made in this Subscription Agreement shall survive the execution and delivery hereof and delivery of the Units hereunder for a period of twelve (12) months from the date of issuance. The representations and warranties of the Purchaser made in this Subscription Agreement shall survive the execution and delivery hereof and delivery of the Units hereunder indefinitely.

(c) Each of the parties hereto shall pay its own fees and expenses (including the fees of any attorneys, accountants, appraisers or others engaged by such party) in connection with this Subscription Agreement and the transactions contemplated hereby whether or not the transactions contemplated hereby are consummated.

(d) This Subscription Agreement may be executed in one or more counterparts each of which shall be deemed an original, but all of which shall together constitute one and the same instrument.

(e) Each provision of this Subscription Agreement shall be considered separable and, if for any reason any provision or provisions hereof are determined to be invalid or contrary to applicable law, such invalidity or illegality shall not impair the operation of or affect the remaining portions of this Subscription Agreement.

(f) Paragraph titles are for descriptive purposes only and shall not control or alter the meaning of this Subscription Agreement as set forth in the text.

(g) The Purchaser understands and acknowledges that there may be multiple Closings for the Offering.

20. **Omnibus Signature Page.** This Subscription Agreement is intended to be read and construed in conjunction with the Registration Rights Agreement pertaining to the issuance by the Company of the Shares and Warrants to subscribers pursuant to the Memorandum. Accordingly, pursuant to the terms and conditions of this Subscription Agreement and such related agreement it is hereby agreed that the execution by the Purchaser of this Subscription Agreement, in the place set forth herein, shall constitute agreement to be bound by the terms and conditions hereof and the terms and conditions of the Registration Rights Agreement, with the same effect as if each of such separate, but related agreement, were separately signed.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

To subscribe for Units in the private offering of

Manhattan Pharmaceuticals, Inc.

1. **Date and Fill** in the number of Units being purchased and **Complete and Sign** the Subscription Agreement.

2. **Initial** the Accredited Investor Certification page attached to this Subscription Agreement.

3. **Complete** and return the Investor Profile and, if applicable, Wire Transfer Authorization attached to this letter.

4. **Fax** all forms to [_____] at [_____] and then send all signed original documents with check to:

   National Securities Corporation
   [_____]

5. Please make your subscription payment payable to the order of **"Signature Bank, Escrow Agent for Manhattan Pharmaceuticals, Inc."**

Questions regarding completion of the subscription documents should be directed to [_____].

ANTI MONEY LAUNDERING REQUIREMENTS

The USA PATRIOT Act

The USA PATRIOT Act is designed to detect, deter, and punish terrorists in the United States and abroad. The Act imposes new anti-money laundering requirements on brokerage firms and financial institutions. Since April 24, 2002 all brokerage firms have been required to have new, comprehensive anti-money laundering programs.

To help you understand these efforts, the Placement Agent wants to provide you with some information about money laundering and its steps to implement the USA PATRIOT Act.

What is money laundering?

Money laundering is the process of disguising illegally obtained money so that the funds appear to come from legitimate sources or activities. Money laundering occurs in connection with a wide variety of crimes, including illegal arms sales, drug trafficking, robbery, fraud, racketeering, and terrorism.

How big is the problem and why is it important?

The use of the U.S. financial system by criminals to facilitate terrorism or other crimes could well taint our financial markets. According to the U.S. State Department, one recent estimate puts the amount of worldwide money laundering activity at $1 trillion a year.

What is the Placement Agent required to do to eliminate money laundering?

Under new rules required by the USA PATRIOT Act, the Placement Agent's anti-money laundering program must designate a special compliance officer, set up employee training, conduct independent audits, and establish policies and procedures to detect and report suspicious transaction and ensure compliance with the new laws.

As part of its required program, the Placement Agent may ask you to provide various identification documents or other information. Until you provide the information or documents the Placement Agent needs, we may not be able to effect any transactions for you.

MANHATTAN PHARMACEUTICALS, INC.
OMNIBUS SIGNATURE PAGE TO THE
SUBSCRIPTION AGREEMENT AND
REGISTRATION RIGHTS AGREEMENT

Subscriber hereby elects to subscribe under the Subscription Agreement for a total of _____ Units at a price of $25,000 per Unit (NOTE: to be completed by subscriber) and executes the Subscription Agreement and Registration Rights Agreement.

Date (NOTE: To be completed by subscriber): _____, 20__

If the Purchaser is an INDIVIDUAL, and if purchased as JOINT TENANTS, as TENANTS IN COMMON, or as COMMUNITY PROPERTY:

Print Name(s)	**Social Security Number(s)**
Signature(s) of Subscriber(s)	**Signature**
Date	**Address**

If the Purchaser is a PARTNERSHIP, CORPORATION, LIMITED LIABILITY COMPANY or TRUST:

Name of Partnership, Corporation, Limited Liability Company or Trust	**Federal Taxpayer Identification Number**
By: _____ **Name:** **Title:**	**State of Organization**
Date	**Address**

MANHATTAN PHARMCEUTICALS, INC.	**NATIONAL SECURITIES CORP.**
By: _____ Authorized Officer	By: _____ Authorized Officer

Exhibit 10.36

PLACEMENT AGENCY AGREEMENT

December 28, 2009

National Securities Corporation
330 Madison Avenue, 18 th Floor
New York, New York 10017

Ladies and Gentlemen:

Manhattan Pharmaceuticals, Inc., a Delaware corporation (the " **Company** "), hereby confirms its agreement (the " **Agreement** ") with National Securities Corporation, a Washington corporation (the " **Placement Agent** ") as follows:

1. Offering . (a) The Company will offer (the " **Offering** ") for sale to certain "accredited investors" (each, an " **Investor** " and, collectively, the " **Investors** ") through the Placement Agent, as exclusive agent for the Company, a minimum (the " **Minimum Amount** ") of 100 units ($2,500,000) (the "Units") and a maximum (the " **Maximum Amount** ") of 160 Units ($4,000,000). Each Unit shall be sold at a price of $25,000 per Unit (the " **Offering Price** ") and shall consist of (i) 357,143 shares of Company common stock, $.001 par value per share (the **"Common Stock"** or the " **Shares** ") and (ii) warrants (**"Warrants"**) to purchase 535,714 shares of Common Stock of the Company (each a " **Warrant Share** " and collectively the " **Warrant Shares** "). The Shares, Warrants and Warrant Shares (sometimes collectively referred to herein as the " **Securities** ") shall have the rights and privileges described in the Memorandum (as defined herein). The Company and the Placement Agent (by mutual agreement) reserve the right to increase the Maximum Amount by an additional forty (40) Units ($1,000,000) ("Overallotment").

(b) Placement of the Units by the Placement Agent will be made on a "reasonable efforts, all-or-none" basis with respect to the Minimum Amount and on a "reasonable efforts" basis thereafter as to any amounts in excess of the Minimum Amount. The minimum subscription for Units shall be 1 Unit ($25,000) *provided , however* , that the Company and the Placement Agent may, in their discretion, accept subscriptions for a lesser number of Units. The Units will be offered commencing on the date of the Memorandum (as defined below) until February 28, 2010 unless extended by the Company and the Placement Agent to March 28, 2010 **,** or terminated earlier as provided herein (the " **Offering Period** "). The date on which the Offering Period shall terminate shall be referred to as the " **Termination Date** ."

(c) The Placement Agent shall not tender to the Company and the Company shall not accept subscriptions for, or sell Units to, any persons or entities who do not qualify as "accredited investors," as such term is defined in Rule 501 of Regulation D promulgated under Section 4(2) of the Securities Act of 1933, as amended (the " **Act** ").

(d) The offering of the Units will be made by the Company solely pursuant to the Memorandum, which at all times will be in form and substance acceptable to the Placement Agent and its counsel and contain such legends and other information as the Placement Agent and its counsel may, from time to time, deem necessary and desirable to be set forth therein. " **Memorandum** " as used in this Agreement means the Company's Confidential Private Placement Memorandum dated December 28, 2009, inclusive of all exhibits, and all amendments, supplements and appendices thereto. Unless otherwise defined, each term used in this Agreement will have the same meaning as set forth in the Memorandum.

2. Representations, Warranties and Covenants of the Placement Agent . The Placement Agent hereby represents, warrants and covenants to the Company that:

(a) The Placement Agent is and will remain during the term of this Agreement, a duly registered broker-dealer pursuant to the Securities Exchange Act of 1934, as amended and the rules and regulations promulgated thereunder (the " **1934 Act** ") and a member in good standing of the Financial Industry Regulatory Authority (" **FINRA** ").

(b) The Placement Agent shall not engage in any form of general solicitation or general advertising that is prohibited by Regulation D as promulgated under Section 4(2) of the Act (" **Regulation D** ") in connection with the Offering, or take any action that might reasonably be expected to jeopardize the availability for the Offering of the exemption from registration provided by Rule 506 under Regulation D and /or Section 4(6). Neither the Placement Agent, its affiliates, nor any person acting on its or their behalf has made or will make any offers or sales of any security or solicitations of any offers to buy any security through means other than the Memorandum.

(c) The Placement Agent will offer Units for sale in such circumstances as is in compliance with securities or "blue sky" laws of the states in which the potential investors are located.

3. Representations, Warranties and Covenants of the Company . Except as set forth in the Company's disclosure schedule which is annexed hereto (the " **Disclosure Schedule** "), the Company hereby represents and warrants to the Placement Agent as follows:

(a) *Organization; Execution, Delivery and Performance* .

(i) The Company and each subsidiary of which the Company owns, directly or indirectly, a controlling interest, if any, (a " **Subsidiary** ") is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction in which it is incorporated or organized, with full power and authority (corporate and other) to own, lease, use and operate its properties and to carry on its business as and where now owned, leased, used, operated and conducted. The Company is duly qualified as a foreign corporation to do business and is in good standing in every jurisdiction in which its ownership or use of property or the nature of the business conducted by it makes such qualification necessary except where the failure to be so qualified or in good standing would not have a Material Adverse Effect. For purposes of this Agreement " **Material Adverse Effect** " shall mean a material adverse effect on (1) the assets, liabilities, results of operations, condition (financial or otherwise), business, or prospects of the Company taken as a whole; or (2) the ability of the Company to perform its obligations under the Transaction Documents (as defined herein), but, to the extent applicable, shall exclude any circumstance, change or effect to the extent resulting or arising from: (1) any change in general economic conditions in the industries or markets in which the Company and its Subsidiaries operates so long as the Company and its Subsidiaries are not disproportionately (in a material manner) affected by such changes; (2) national or international political conditions, including any engagement in hostilities, whether or not pursuant to the declaration of a national emergency or war, or the occurrence of any military or terrorist attack so long as the Company and its Subsidiaries are not disproportionately (in a material manner) affected by such changes; (3) changes in United States generally accepted accounting principles, or the interpretation thereof; or (4) the entry into or announcement of this Agreement, actions contemplated by this Agreement, or the consummation of the transactions contemplated hereby.

(ii) The Company has no Subsidiaries other than those listed in Schedule 3(a) of the Disclosure Schedule. Except as disclosed in Schedule 3(a) of the Disclosure Schedule or in the SEC Documents, the Company owns, directly or indirectly, all of the capital stock or comparable equity interests of each Subsidiary free and clear of any and all liens, security interests, charges, pledges or similar encumbrances (" **Liens** ") and all of the issued and outstanding shares of capital stock or comparable equity interest of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive rights of first refusal and other similar rights. The Company has the unrestricted right to vote, and (subject to limitations imposed by applicable law) to receive dividends and distributions on, all capital stock or other equity securities of its Subsidiaries that are owned by the Company. As used herein, **"SEC Documents"** means all of the Company's reports, schedules, financial statements and other documents required to be filed by it with the SEC pursuant to the reporting requirements of the Exchange Act including without limitation, the Company's annual report on Form 10-K for the year ended December 31, 2008, the Company's quarterly reports on Form 10-Q for the quarters ended March 31, 2009, June 30, 2009 and September 30, 2009, the Company's definitive proxy statement on Schedule 14A filed with the SEC on October 29, 2009 and the Company's current reports on Form 8-K, and all exhibits included therein and financial statements and schedules thereto and documents incorporated by reference therein.

(iii) (1) The Company has all requisite corporate power and authority to enter into and perform this Agreement, the Subscription Agreements, the Registration Rights Agreement, the Warrants and the Agent's Warrants (the " **Transaction Documents** ") and to consummate the transactions contemplated hereby and thereby and to issue the securities comprising the Units in accordance with the terms hereof and thereof;

(2) the execution and delivery of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated hereby and thereby have been duly authorized by the Company's Board of Directors and no further consent or authorization of the Company, its Board of Directors, or its stockholders, is required except as expressly contemplated by this Agreement;

(3) each of the Transaction Documents has been, or will be, duly executed and delivered by the Company by its authorized representative, and such authorized representative is a true and official representative with authority to sign each such document and the other documents or certificates executed in connection herewith and bind the Company accordingly; and

(4) each of the Transaction Documents constitutes, and upon execution and delivery thereof by the Company will constitute, a legal, valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except as such enforceability may be limited by general principals of equity, or to applicable bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws relating to, or affecting generally, the enforcement of applicable creditors' rights and remedies.

(b) *Shares, Warrants Shares and Agent Warrant Shares Duly Authorized* . The shares of the Company's Common Stock issuable upon (i) the sale of the Units, (ii) exercise of the Warrants (the " **Warrant Shares** ") or (ii) exercise of the Agent's Warrants (as defined herein) (the " **Agent Warrant Shares** ") will be duly authorized and reserved for future issuance and, upon sale of the Units, exercise of the Warrants or exercise of the Agent Warrants, in each case in accordance with their terms, will be duly and validly issued, fully paid and non-assessable, and free from all taxes or Liens with respect to the issue thereof and shall not be subject to preemptive rights, rights of first refusal and/or other similar rights of stockholders of the Company and/or any other individual or entity.

(c) *Conflicts* .

(i) The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated hereby and thereby (including, without limitation, the issuance and reservation for issuance of the Common Stock, Warrant Shares and the Agent Warrants Shares) will not:

(1) conflict with or result in a violation of any provision of the Certificate of Incorporation or By-laws or similar documents of the Company;

(2) violate or conflict with, or result in a breach of any provision of, or constitutes a default and/or an event of default (or an event which with notice or lapse of time or both could become a default and/or an event of default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture, patent, patent license or instrument to which the Company is a party, except for possible violations, conflicts or defaults as would not, individually or in the aggregate, have a Material Adverse Effect on the Company; or

(3) result in a violation of any law, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations and regulations of any self-regulatory organizations to which the Company or its securities are subject) applicable to the Company or by which any property or asset of the Company is bound or affected.

(ii) The Company is not in violation of its Certificate of Incorporation, By-laws or other organizational documents. The Company is not in default (and no event has occurred which with notice or lapse of time or both could put the Company in default), under, and the Company has not taken any action or failed to take any action that would give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which the Company is a party or by which any property or assets of the Company is bound or affected, except for possible defaults, terminations, amendments, accelerations or cancellations which would not, individually or in the aggregate, have a Material Adverse Effect. The businesses of the Company are not being conducted in violation of any law, rule ordinance or regulation of any governmental entity, except for possible violations which would not, individually or in the aggregate, have a Material Adverse Effect. Based in part on the truth and accuracy of the Investor's representations set forth herein, except as required under the Act, the Securities Exchange Act of 1934, as amended (the " **Exchange Act** ") **, or** any applicable state securities laws, the Company is not required to obtain any consent, authorization or order of, or make any filing or registration with, any court, governmental agency, regulatory agency, self regulatory organization or stock market or any third party in order for it to execute, deliver or perform any of its obligations under the Transaction Documents in accordance with the terms hereof or thereof or to issue and sell the Units in accordance with the terms hereof and to issue the Warrant Shares upon exercise of the Warrants or the Agent Warrant Shares upon exercise of the Agent Warrants. All consents, authorizations, orders, filings and registrations which the Company is required to obtain pursuant to the preceding sentence have been obtained or effected on or prior to the date hereof or will be obtained or effected in a timely manner following the Closing Date.

(d) *Capitalization* .

(i) As of November 30, 2009, the authorized capital stock of the Company consists solely of 10,000,000 share of preferred stock, of which no shares of preferred stock are issued and outstanding and 500,000,000 shares of Common Stock, of which 70,624,232 shares of Common Stock are issued and outstanding, 7,459,936 shares of Common Stock are reserved for issuance pursuant to options granted under the Company's stock option plan, and 87,168,951 shares are reserved for issuance pursuant to securities (other than the Units and the Agent Warrants) exercisable for, or convertible into or exchangeable for shares of Common Stock.

(ii) Except as described above, in the SEC Documents or Schedule 3(d) annexed hereto, as of November 30, 2009:

(1) there are no outstanding options, warrants, scrip, rights to subscribe for, puts, calls, rights of first refusal, agreements, understandings, claims or other commitments or rights of any character whatsoever relating to, or securities or rights convertible into or exchangeable for any shares of capital stock of the Company, or arrangements by which the Company is or may become bound to issue additional shares of capital stock of the Company;

(2) other than as set forth on Schedule 3(d) of the Disclosure Schedule, there are no agreements or arrangements under which the Company is obligated to register the sale of any of its securities under the Act (except for the registration rights provisions contained herein); and

(3) there are no anti-dilution or price adjustment provisions contained in any security issued by the Company (or in any agreement providing rights to security holders) that will be triggered by the issuance of any of the Units, Common Stock, Warrants, the Warrant Shares, Agent's Warrants and/or the Agent Warrant Shares. All of such outstanding shares of capital stock are, or upon issuance will be, duly authorized, validly issued, fully paid and nonassessable. No shares of capital stock and/or other securities of the Company are subject to preemptive rights, rights of first refusal and/or any other similar rights of the stockholders of the Company and/or any other Person or any Lien imposed through the actions or failure to act of the Company.

(e) *SEC Information* .

(i) Except as set forth in the SEC Documents, since January 1, 2009, the Company has timely filed (subject to 12b-25 filings with respect to certain periodic filings) all reports, schedules, forms, statements and other documents required to be filed by it with the SEC pursuant to the reporting requirements of the Exchange Act. The SEC Documents have been made available to the Investor via the SEC's EDGAR system. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the Exchange Act and the rules and regulations of the SEC promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the time they were filed with the SEC, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. As of the date hereof, the SEC Documents when taken in their entirety, shall not contain any untrue statements of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the date upon which they were made and the circumstances under which they were made, not misleading. As of their respective dates, the financial statements of the Company included in the SEC Documents (" **Company Financial Statements** ") complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto as in effect at the time of the filing. The Company Financial Statements have been prepared in accordance with United States generally accepted accounting principles (" **GAAP** "), consistently applied, during the periods involved except:

(1) as may be otherwise indicated in such financial statements or the notes thereto; or

(2) in the case of unaudited interim statements, to the extent they may not include footnotes or may be condensed or summary statements) and fairly present in all material respects the consolidated financial position of the Company and its consolidated Subsidiaries, if any, as of the dates thereof and the consolidated results of their operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments).

(ii) Except as expressly set forth in the Company Financial Statements or in the SEC Documents, the Company has no liabilities, contingent or otherwise, other than:

(1) liabilities incurred in the ordinary course of business subsequent to December 31, 2008; and

(2) obligations under contracts and commitments incurred in the ordinary course of business and not required under GAAP to be reflected in such financial statements, which, individually or in the aggregate, are not material to the financial condition or operating results of the Company.

(iii) The shares of Common Stock are quoted on the OTCBB under the symbol "MHAN." The Company has not received notice (written or oral) from the OTCBB to the effect that the Company is not in compliance with the continuing requirements of the OTCBB. The Company is, and it has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such maintenance requirements.

(iv) All information relating to or concerning the Company and its officers, directors, employees, customers or clients (including, without limitation, all information regarding the Company's internal financial accounting controls and procedures) set forth in the Transaction Documents and the SEC Documents, when taken together as a whole, does not contain an untrue statement of material fact or omit to state any material fact necessary in order to make the statements made herein or therein, in light of the circumstances under which they were made, not misleading.

(f) *Intellectual Property* . Except as set forth in Schedule 3(f) or in the SEC Documents, the Company or its Subsidiaries owns valid title, free and clear of any Liens, or possesses the requisite valid and current licenses or rights, free and clear of any Liens, to use all intellectual property in connection with the conduct its business as now operated. There is no pending claim or action by any person pertaining to, or proceeding pending, or to the Company's knowledge threatened, which challenges the right of the Company or of a Subsidiary with respect to any intellectual property necessary to enable it to conduct its business as now operated. To the best of the Company's knowledge, the Company's current products, services and processes do not infringe on any intellectual property or other rights held by any person, and the Company is unaware of any facts or circumstances which might give rise to any of the foregoing. The Company has not received any written notice of infringement of, or conflict with, the asserted rights of others with respect to its intellectual property. The Company has taken reasonable security measures to protect the secrecy, confidentiality and value of its intellectual property.

(g) *Permits;Compliance* . The Company is in possession of all franchises, grants, authorizations, licenses, permits, easements, variances, exemptions, consents, certificates, approvals and orders necessary to own, lease and operate its properties and to carry on its business as it is now being conducted (collectively, the " **Company Permits** "), except where such failure to posses would not have a Material Adverse Effect, and there is no action pending or, to the knowledge of the Company, threatened regarding suspension or cancellation of any of the Company Permits. The Company is not in conflict with, or in default or violation of, any of the Company Permits, except for any such conflicts, defaults or violations which, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect. Since December 31, 2008, the Company has received no notification with respect to possible conflicts, defaults or violations of applicable laws, except for notices relating to possible conflicts, defaults or violations, which conflicts, defaults or violations would not have a Material Adverse Effect.

(h) *Absence of Litigation* . Except as set forth in Schedule 3(h) of the Disclosure Schedule or in the SEC Documents, there is no action, suit, claim, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of the Company, threatened against or affecting the Company, or its businesses, properties or assets or their officers or directors in their capacity as such, that would have a Material Adverse Effect.

(i) *No Materially Adverse Contracts, etc* . Except as set forth in Schedule 3(i) of the Disclosure Schedule, the Company is not subject to any charter, corporate or other legal restriction, or any judgment, decree, order, rule or regulation which in the judgment of the Company's officers has or is expected in the future to have a Material Adverse Effect. The Company is not a party to any contract or agreement which has or is reasonably expected to have a Material Adverse Effect.

(j) *No Material Changes* . Except as set forth in the SEC Documents, since December 31, 2008, there has not been (i) any material adverse change in the financial condition, operations or business of the Company from that shown on the Company Financial Statements, or any material transaction or commitment effected or entered into by the Company outside of the ordinary course of business; (ii) to the Company's knowledge, any effect, change or circumstance which has had, or could reasonably be expected to have, a Material Adverse Effect; or (iii) any incurrence of any material liability outside of the ordinary course of business.

(k) *Labor Matters* .

(i) The Company is not a party to or bound by any collective bargaining agreements or other agreements with labor organizations. The Company has not violated in any material respect any laws, regulations, orders or contract terms, affecting the collective bargaining rights of employees, labor organizations or any laws, regulations or orders affecting employment discrimination, equal opportunity employment, or employees' health, safety, welfare, wages and hours.

(ii) The Company is, and at all times has been, in compliance in all material respects with all applicable laws respecting employment (including laws relating to classification of employees and independent contractors) and employment practices, terms and conditions of employment, wages and hours, and immigration and naturalization.

(l) *Environmental Matters* . To the Company's knowledge, neither the Company nor any Subsidiary is in violation of any statute, rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, " **Environmental Laws** "), owns or operates any real property contaminated with any substance that is subject to any Environmental Laws, is liable for any off-site disposal or contamination pursuant to any Environmental Laws, and is subject to any claim relating to any Environmental Laws, which violation, contamination, liability or claim has had or could reasonably be expected to have a Material Adverse Effect, individually or in the aggregate; and there is no pending or, to the Company's knowledge, threatened investigation that might lead to such a claim.

(m) *Tax Matters* . None of the Company and its Subsidiaries has made or filed any federal, state and foreign income or any other tax returns, reports and declarations required by any jurisdiction to which it is subject and none of them has ever paid any taxes or other governmental assessments or charges that are material in amount, nor is it aware of any that have been assessed or are due. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim. Neither the Company nor any of its Subsidiaries have executed a waiver with respect to the statute of limitations relating to the assessment or collection of any foreign, federal, state or local tax.

(n) *Certain Transactions* . Except as set forth on Schedule 3(n) of the Disclosure Schedule or in the SEC Documents, there are no loans, leases, royalty agreements or other transactions between (i) the Company or any of its customers or suppliers; and (ii) any officer, employee, consultant or director of the Company or any person owning five (5%) percent or more of the capital stock of the Company or five (5%) percent or more of the ownership interests of the Company or any member of the immediate family of such officer, employee, consultant, director, stockholder or owner or any corporation or other entity controlled by such officer, employee, consultant, director, stockholder or owner, or a member of the immediate family of such officer, employee, consultant, director, stockholder or owner.

(o) *Form D; Blue Sky Laws* . The Company shall file a Form D with respect to the Securities as required under Regulation D promulgated under the Act and to provide a copy thereof to the Placement Agent, promptly after such filing. The Company shall assist the legal counsel of the Placement Agent of the Units on or before the date of the closing of the sale of the Securities (the " **Closing Date** "), in qualifying the Units for sale to the Investors in the applicable closing pursuant to this Agreement under applicable securities or "blue sky" laws of the states of the United States (or to obtain an exemption from such qualification), and shall pay all fees and expenses of such counsel in connection therewith, including, but not limited to, all state filing fees and such counsel's legal fees and expenses as further provided in Section 6(h) hereto.

(p) *Memorandum* . The Memorandum has been diligently prepared by the Company, and, to the best of Company's knowledge, is in compliance with Regulation D, the Act and the requirements of all other rules and regulations (the " **Regulations** ") of the Securities and Exchange Commission (the " **SEC** ") relating to offerings of the type contemplated by the Offering, and the applicable securities laws and the rules and regulations of those jurisdictions wherein the Units are to be offered and sold. With respect to actions taken by the Company, the Units will be offered and sold pursuant to the registration exemption provided by Regulation D and Section 4(2) and/or Section 4(6) of the Act as a transaction not involving a public offering and the requirements of any other applicable state securities laws and the respective rules and regulations thereunder in those jurisdictions in which the Placement Agent notifies the Company that the Units are being offered for sale. The Memorandum describes all material aspects, including attendant risks, of an investment in the Company. The Company has not taken nor will it take any action which conflicts with the conditions and requirements of, or which would make unavailable with respect to the Offering, the exemption(s) from registration available pursuant to Regulation D or Section 4(2) and/or Section 4(6) of the Act, and knows of no reason why any such exemption would be otherwise unavailable to it. Neither the Company, nor, to the Company's knowledge, any person acting on its or their behalf, has engaged in any form of general solicitation or general advertising (within the meaning of Regulation D) in connection with the offer or sale of the Units. The Company has not been subject to any order, judgment or decree of any court of competent jurisdiction temporarily, preliminarily or permanently enjoining it for failing to comply with Section 503 of Regulation D.

(q) *10b-5 Representation* . The Memorandum does not include any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. None of the statements, documents, certificates or other items prepared or supplied by the Company with respect to the transactions contemplated hereby contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements contained therein not misleading in light of the circumstances in which they were made. There is no fact which the Company has not disclosed in the Memorandum and which the Company is aware that is reasonably likely to have a Material Adverse Effect.

(r) *Property Ownership* . Except as set forth in the Memorandum or in the SEC Documents, the Company owns its property and assets free and clear of all mortgages, liens, loans, pledges, security interests, claims, equitable interests, charges, and encumbrances, except such encumbrances and liens which arise in the ordinary course of business and do not materially impair its ownership or use of such property or assets. With respect to the property and assets it leases, if any, the Company is in compliance in all material respects with such leases and, to its knowledge, holds a valid leasehold interest free of any liens, claims, or encumbrances.

(s) *Insurance* . Each of the Company and its Subsidiaries is insured by recognized, financially sound and reputable institutions with policies in such amounts and with such deductibles and covering such risks as are prudent and customary in the business in which it is engaged, including directors and officers liability. Neither the Company nor any Subsidiary has any reason to believe that it will not be able: (i) to renew its existing insurance coverage as and when such policies expire; or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted.

(t) *Illegal Payments* . Neither the Company, nor, to the Company's knowledge, any director, officer, agent, employee or other Person acting on behalf of the Company has, in the course of its actions for, or on behalf of, the Company (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

(u) *PATRIOT Act* . To the best knowledge of the Company, neither the sale of the Units by the Company nor its use of the proceeds thereof will violate the Trading with the Enemy Act, as amended, or any of the foreign assets control regulations of the United States Treasury Department (31 CFR, Subtitle B, Chapter V, as amended) or any enabling legislation or executive order relating thereto. Without limiting the foregoing, the Company is not (a) a person whose property or interests in property are blocked pursuant to Section 1 of Executive Order 13224 of September 23, 2001 Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism (66 Fed. Reg. 49079 (2001)) or (b) a person who engages in any dealings or transactions, or be otherwise associated, with any such person. To the best knowledge of the Company, the Company is in compliance, in all material respects, with the USA Patriot Act of 2001 (signed into law October 26, 2001).

(v) *No Finders* . Except for the compensation set forth in this Agreement or the Memorandum, the Company is not obligated to pay, and has not obligated the Placement Agent to pay, a finder's or origination fee in connection with the Offering, and hereby agrees to indemnify the Placement Agent from any such claim made by any other person as more fully set forth in Section 9 hereof. The Company has not offered for sale or solicited offers to purchase the Units except for negotiations with the Placement Agent. Except as set forth in the Memorandum, no other person has any right to participate in any offer, sale or distribution of the Company's securities to which the Placement Agent's rights, described herein, shall apply.

(w) *No Integration* . Neither the Company, its affiliates, nor any person acting on its or their behalf has made any offers or sales of any security or solicited any offers to buy any security under circumstances that would cause the offer of the Units pursuant to this Agreement to be integrated with prior offerings by the Company for purposes of the Act, or any applicable stockholder approval provisions, which would impair the exemptions relied upon in this Offering or the Company's ability to timely comply with its obligations hereunder. Nor will the Company or its affiliates take any action or steps that would knowingly cause the offer or issuance of the Units to be integrated with other offerings which would impair the exemptions relied upon in this Offering or the Company's ability to timely comply with its obligations hereunder. The Company will not conduct any offering other than the transactions contemplated hereby that will be integrated with the offer or issuance of the Units, which would impair the exemptions relied upon in this Offering or the Company's ability to timely comply with its obligations hereunder.

4. Placement Agent Appointment and Compensation . (a) The Company hereby appoints the Placement Agent and its selected dealers, if any, as its exclusive agent(s) in connection with the Offering. The Company acknowledges that the Placement Agent may use selected dealers to fulfill its agency hereunder provided that such dealers are compensated solely by the Placement Agent. The Company has not and will not make, or permit to be made, any offers or sales of the Units other than through the Placement Agent without its prior written consent. The Placement Agent has no obligation to purchase any of the Units. The agency of the Placement Agent hereunder shall continue until the later of the Termination Date and the Final Closing.

(b) The Company will cause to be delivered to the Placement Agent copies of the Memorandum and has consented, and hereby consents, to the use of such copies for the purposes permitted by the Act and applicable securities laws, and hereby authorizes the Placement Agent and its agents, employees and selected dealers to use the Memorandum in connection with the sale of the Units until the later of the Final Closing and the Termination Date, and no other person or entity is or will be authorized to give any information or make any representations other than those contained in the Memorandum or to use any offering materials other than those contained in the Memorandum in connection with the sale of the Units.

(c) The Company will cooperate with the Placement Agent by making available to its representatives such information as may be requested in making a reasonable investigation of the Company and its affairs and shall provide access to such employees as shall be reasonably requested.

(d) The Company shall pay to the Placement Agent at each Closing a cash placement fee equal to ten percent (10%) of the aggregate gross proceeds from the sale of Units sold in the Offering (the " **Agent's Fee** "). Payment of the proportional amounts of the Agent's Fee will be made out of the proceeds of subscriptions for the Units sold at each Closing.

(e) As additional compensation hereunder, at each Closing the Company will issue to the Placement Agent or its designees, for nominal consideration, warrants to purchase a number of shares of Common Stock equal to 10% of the number of shares of Common Stock included in the Units (the " **Agent's Warrants** ") with an initial exercise price of $0.11 per share. The Agent's Warrants and the Agent's Fee are sometimes collectively referred to herein as the " **Agent's Compensation** ." The Agent's Warrants shall provide the holder thereof with a cashless exercise and "full ratchet" price protection right consistent with the terms of the Warrants. The Agent's Warrants shall be exercisable until the earlier of the date that is five (5) years after the date of the initial Closing.

(f) The Placement Agent shall also receive a non-accountable expense allowance equal to two percent (2%) of the gross proceeds raised at each Closing (the " **Agent's Expense Allowance** "), which shall cover all of the costs and expenses of the Placement Agent (including travel costs, due diligence costs, marketing expenses including expenses related to Company presentations. Payment of the Agent's Expense Allowance will be made out of the proceeds of subscriptions for Units at each Closing. The Agent's Expense Allowance shall not cover (i) up to $40,000 of Placement Agent legal expenses that the Company shall be required to reimburse at the First Closing and (ii) Blue Sky Expenses (as defined below). Placement Agent will not bear any of the Company's legal, accounting, printing or other expenses in connection with any transaction contemplated hereby.

(g) The Company shall also pay to the Placement Agent the Agent's Fee and Agent's Warrants, calculated according to the percentage set forth in Sections 4(d) and 4(e), respectively, of this Agreement, in the event that the Company shall make any sales of its securities for cash at any time prior to the date that is twelve (12) months after Termination Date and the Final Closing with respect to any person or entity to which the Placement Agent transmits the Memorandum during the Offering Period, the names of which shall be provided in writing to Company within ten (10) days after the Final Closing (the " **Placement Agent Referral List** "), irrespective of whether such investors purchased Shares in the Offering (collectively, the " **Post-Closing Investors** "). The Company acknowledges and agrees that the Placement Agent Referral List is proprietary to the Placement Agent, shall be maintained in strict confidence by the Company and those persons/entities on such list hall not be contacted by the Company without the Placement Agent's prior written consent.

5. Subscription and Closing Procedures . (a) Each prospective purchaser will be required to complete and execute original signature pages in the forms annexed to the Memorandum (collectively, the " **Subscription Documents** "), which will be forwarded or delivered to the Placement Agent at the Placement Agent's offices at the address set forth in Section 14 hereof, together with the subscriber's check or good funds in the full amount of the Offering Price for the number of Units desired to be purchased.

(b) All funds for subscriptions received from the Offering will be promptly forwarded by the Placement Agent or the Company, if received by it, to, and deposited into, a non-interest bearing escrow account (the " **Escrow Account** ") established for such purpose with Signature Bank (the " **Escrow Agent** "). All such funds for subscriptions will be held in the Escrow Account pursuant to the terms of an escrow agreement among the Company, the Placement Agent and the Escrow Agent. The Company will pay all fees related to the establishment and maintenance of the Escrow Account. The Company will either accept or reject, for any or no reason, the Subscription Documents in a timely fashion and at each Closing will countersign the Subscription Documents and provide duplicate copies of such documents to the Placement Agent for distribution to the subscribers. The Company will give notice to the Placement Agent of its acceptance of each subscription. The Company, or the Placement Agent on the Company's behalf, will promptly return to subscribers incomplete, improperly completed, improperly executed and rejected subscriptions and give written notice thereof to the Placement Agent upon such return.

(c) If subscriptions for at least the Minimum Amount have been accepted prior to the Termination Date, the funds therefore have been collected by the Escrow Agent and all of the conditions set forth elsewhere in this Agreement are fulfilled, a closing shall be held promptly with respect to Units sold (the " **First Closing** "). Thereafter, the remaining Units will continue to be offered and sold until the Termination Date. Additional closings (" **Closings** ") may from time to time be conducted at times mutually agreed to between the Placement Agent and the Company with respect to additional Units sold, with the final closing (" **Final Closing** ") to occur within 10 days after the earlier of the Termination Date and the date on which the Maximum Amount has been subscribed for. Delivery of payment for the accepted subscriptions for Units from the funds held in the Escrow Account will be made at each Closing at the Placement Agent's offices against delivery of the Units by the Company at the address set forth in Section 14 hereof (or at such other place as may be mutually agreed upon between the Company and the Placement Agent), net of amounts due to the Placement Agent and its Blue Sky counsel as of such Closing. Executed instruments/certificates for the Units and the Agent's Warrants will be in such authorized denominations and registered in such names as the Placement Agent may request on or before the date of each Closing (" **Closing Date** "), and will be made available to the Placement Agent for checking and packaging at the Placement Agent's office at each Closing.

(d) If Subscription Documents for the Minimum Amount have not been received and accepted by the Company on or before the Termination Date (as may be extended as provided herein) for any reason, the Offering will be terminated, no Units will be sold, and the Escrow Agent will, at the request of the Placement Agent or the Company, cause all monies received from subscribers for the Units to be promptly returned to such subscribers without interest, penalty, expense or deduction.

6. Further Covenants of the Company . The Company hereby covenants and agrees that:

(a) If, at any time prior to the Final Closing (i) any event shall occur which does or may materially affect the Company or as a result of which it might become necessary to amend or supplement the Memorandum so that the representations, warranties and covenants herein remain true, or (ii) in case it shall, in the opinion of counsel to the Placement Agent and the Company, be necessary to amend or supplement the Memorandum to comply with Regulation D or any other applicable securities laws or regulations, the Company shall, in the case of (i) above, promptly notify the Placement Agent and, in the event of either (i) or (ii) above shall, at its sole cost, prepare and furnish to the Placement Agent copies of appropriate amendments and/or supplements to the Memorandum in such quantities as the Placement Agent may request. The Company shall not at any time, whether before or after the Final Closing, prepare or use any amendment or supplement to the Memorandum of which the Placement Agent shall not previously have been advised and furnished with a copy, or to which the Placement Agent or its counsel will have reasonably objected in writing or orally (confirmed in writing within 24 hours), or which is not in compliance with the Act, the regulations thereunder and other applicable securities laws. As soon as the Company is advised thereof, the Company shall advise the Placement Agent and its counsel, and confirm the advice in writing, of any order preventing or suspending the use of the Memorandum, or the suspension of the qualification or registration of the Units or the Securities for offering or the suspension of any exemption for such qualification or registration of the Units or the Securities for offering in any jurisdiction, or of the institution or threatened institution of any proceedings for any of such purposes, and the Company shall use its best efforts to prevent the issuance of any such order and, if issued, to obtain as soon as reasonably possible the lifting thereof.

(b) The Company will use its commercially reasonable efforts to assist counsel to the Placement Agent in qualifying the Units for sale under the securities laws of such U.S. jurisdictions as may be mutually agreed to by the Company and the Placement Agent; provided , that the Company will not be required or obligated to qualify to do business in any jurisdiction where it is not now so qualified or to take any action which would subject it to service of process in suits, other than those arising out of the offering or sale of the Units. Furthermore, the Company shall file a copy of a Notice of Sale on Form D with the SEC within the prescribed time period and shall file all amendments with the SEC as may be required. Copies of the Form D and all amendments thereto shall be provided to the Placement Agent. The Company or its counsel will provide counsel for the Placement Agent with copies of all correspondence or other documentation filed with or received from any jurisdiction where the Units are to be registered or qualified or offered . The Company will promptly provide to the Placement Agent for delivery to all offerees and investors and their representatives any additional information, documents and instruments which the Placement Agent or the Company reasonably deem necessary to comply with the rules, regulations and judicial and administrative interpretations respecting compliance with such exemptions or qualifications and registrations in those states where the Units are to be offered or sold.

(c) The Company shall place a legend on the certificates representing the Units, if any, and the Shares, Warrants, Warrant Shares, Agent's Warrants and Agent's Warrant Shares, issued to subscribers stating that the securities evidenced thereby have not been registered under the Act or applicable state securities laws, setting forth or referring to the applicable restrictions on transferability and sale of such securities under the Act and applicable state laws.

(d) The Company shall apply the net proceeds from the sale of the Units to fund its working capital requirements and for such other purposes as are specifically described under “Use of Proceeds” in the Memorandum.

(e) During the Offering Period, the Company shall make available for review by prospective Investors during normal business hours at the Company’s offices, upon their request, copies of such corporate documents, including, but not limited to, organizational materials and material contracts, as such Investor shall reasonably request, to the extent that such shall not violate any obligation on the part of the Company to maintain the confidentiality thereof, and shall afford each prospective Investor the opportunity to ask questions of and receive answers from an officer of the Company concerning the terms and conditions of the Offering and the opportunity to obtain such other additional information necessary to verify the accuracy of the Memorandum to the extent it possesses such information or can acquire it without unreasonable expense.

(f) Until the earlier of (i) completion of the Offering, and (ii) the Termination Date, neither the Company nor any person or entity acting on its behalf shall negotiate with any other placement agent or underwriter with respect to a private or public offering of the Company’s debt or equity securities except for the transactions contemplated by the Ariston Merger as contemplated in the Memorandum. Except as contemplated in the Memorandum, neither the Company nor anyone acting on its behalf shall, until the Termination Date, offer for sale to, or solicit offers to subscribe for Units or other securities of the Company from, or otherwise approach or negotiate in respect thereof with, any other person.

(g) Until the earlier of (i) the Termination Date and (ii) the Final Closing, the Company will not issue any press release, grant any media interview (including without limitation, internet media outlets), or otherwise communicate with the media in any manner whatsoever without the Placement Agent’s prior written consent, which consent will not unreasonably be withheld or delayed.

(h) The Company shall pay all expenses incurred in connection with the preparation and printing of all necessary offering documents, amendments, and instruments related to the Offering and the issuance of the Units, the Common Stock, Warrants and the Agent’s Warrants, and shall also pay its own expenses for accounting fees, legal fees, bound volumes of closing documents, and other costs involved with the Offering. The Company shall provide at its own expense such quantities of the Memorandum and other documents and instruments relating to the Offering as the Placement Agent may reasonably request. The Blue Sky filings shall be prepared by the Placement Agent’s counsel for the Company’s account, with copies to Company’s counsel concurrently (or as soon as sent or received as reasonable possible) of the filings, correspondence, orders, findings and all related matters. In addition, the Company shall pay all filing fees and reasonable legal fees and expenses for Blue Sky services and related filings and out-of-pocket expenses of the Placement Agent’s counsel with respect to Blue Sky exemptions that are sought with respect to the Offering (the “ **Blue Sky Expenses** ”), $6,000 of which shall be paid to the Placement Agent’s counsel upon the First Closing, and additional reasonable amounts, if any, of which shall be paid at any subsequent Closing, as applicable. The Blue Sky filings shall be prepared by the Placement Agent’s counsel for the Company’s account.

(i) Effective upon the sale of the Minimum Amount, the Placement Agent shall have a twelve (12) month right of first refusal from such date to act as a lead placement agent on any future private placement of the Company's securities in which the Company seeks to utilize a third party placement agent or as a lead managing underwriter on any public offering of the Company's securities in which the Company seeks to utilize a third party underwriter. It is understood that if a third party broker-dealer provides the Company with written terms with respect to a future securities offering that the Company wishes to accept during such twelve month period (" **Written Offering Terms** "), the Company shall promptly present same to the Placement Agent. The Placement Agent shall have ten (10) business days from its receipt of the Written Offering Terms in which to determine whether or not to accept such offer and, if the Placement Agent refuses, and provided that such financing is consummated (a) with another placement agent or underwriter upon substantially the same terms and conditions as the Written Offering Terms and (b) within three months after the end of the aforesaid ten (10) business day period, this right of first refusal shall thereafter be forfeited and terminated; provided, however, if the financing is not consummated under the conditions of clauses (a) and (b) above, then the right of first refusal shall once again be reinstated under the same terms and conditions set forth in this Section 6(i) during the remainder of such twelve (12) month period.

7. Conditions of Placement Agent's Obligations . The obligations of the Placement Agent hereunder are subject to the fulfillment, at or before each Closing, of the following additional conditions:

(a) Each of the representations and warranties of the Company qualified as to materiality shall be true and correct at all times prior to and on each Closing Date, except to the extent any such representation or warranty expressly speaks as of an earlier date, in which case such representation or warranty shall be true and correct as of such earlier date, and the representations and warranties of the Company not qualified as to materiality shall be true and correct in all material respects at all times prior to and on each Closing Date, except to the extent any such representation or warranty expressly speaks as of an earlier date, in which case such representation or warranty shall be true and correct in all material respects as of such earlier date.

(b) The Company shall have performed and complied in all material respects with all agreements, covenants and conditions required to be performed by and complied with it under the Transaction Documents at or before each Closing.

(c) No order suspending the use of the Memorandum or enjoining the offering or sale of the Units shall have been issued, and no proceedings for that purpose or a similar purpose shall have been initiated or pending, or, to the best of the Company's knowledge, are contemplated or threatened.

(d) No judgment, writ, order, injunction, award or decree of or by any court, or judge, justice or magistrate, including any bankruptcy court or judge, or any order of or by any governmental authority, shall have been issued, and no action or proceeding shall have been instituted by any governmental authority, enjoining or preventing the consummation of the transactions contemplated hereby or in the other Transaction Documents.

(e) The Placement Agent shall have received certificates of the Chief Executive Officer and Chief Financial Officer of the Company, dated as of each Closing Date, certifying, in such detail as Placement Agent may reasonably request, as to the fulfillment of the conditions set forth in paragraphs (a), (b), (c) and (d) above.

(f) The Company shall have delivered to the Placement Agent: (i) at each Closing a currently dated good standing certificate from the secretary of state of its jurisdiction of incorporation and each jurisdiction in which the Company is qualified to do business as a foreign corporation, and (ii) at the First Closing, certified resolutions of the Company's Board of Directors approving this Agreement and the other Transaction Documents, and the transactions and agreements contemplated by this Agreement and the other Transaction Documents.

(g) On or prior to the date hereof and at each Closing, either the Chief Executive Officer or the Chief Financial Officer of the Company shall have provided a certificate to the Placement Agent confirming that, to the best of their knowledge, there have been no material adverse changes in the condition (financial or otherwise) or prospects of the Company from the date of the financial statements included in the Memorandum, the absence of undisclosed liabilities and such other matters relating to the financial condition and prospects of the Company that the Placement Agent may reasonably request.

(h) At each Closing, the Company shall pay and deliver to the Placement Agent the Agent's Fee, calculated in accordance with Sections 4(d), the Agent's Expense Allowance, calculated in accordance with Sections 4(f) and the Blue Sky Expenses in accordance with Section 6(h) hereof.

(i) At each Closing the Company shall have delivered to the Placement Agent and/or its designees, the appropriate number of Agent's Warrants, calculated in accordance with Section 4(e) hereof.

(j) There shall have been delivered to the Placement Agent a signed opinion of Lowenstein Sandler PC, outside counsel to the Company, dated as of each Closing Date, containing substantially the opinions set forth as Annex A hereto.

(k) All proceedings taken at or prior to each Closing in connection with the authorization, issuance and sale of the Units and the Agent's Warrants will be reasonably satisfactory in form and substance to the Placement Agent and its counsel, and such counsel shall have been furnished with all such documents, certificates and opinions as it may reasonably request upon reasonable prior notice in connection with the transactions contemplated hereby.

8. Covenants of the Placement Agent **.** The Placement Agent covenants that:

(a) The Placement Agent shall limit its offering of the Units to persons for whom the Placement Agent has reasonable grounds to believe and in fact believes are "accredited investors".

(b) The Placement Agent shall in connection with the offering of the Units offered pursuant to the Memorandum, provide copies of the executed subscription documentation to the Company prior to each Closing to enable the Company to establish and determine that each such subscriber is an "accredited investor" within the meaning of Rule 501(a) of the Rules and Regulations and shall deliver.

(c) The Placement Agent shall not sell the Units offered pursuant to the Memorandum by any means of public solicitation or general advertising

(d) To the extent it is determined by the parties hereto and their respective legal counsel that a supplement or amendment to the Memorandum is required based on events that may materially affect the Company or otherwise, the Placement Agent shall distribute copies of any such supplement or amendment to persons who have previously received a copy of the Memorandum from the Placement Agent and who continue to be interested in the Offering and include such supplement or amendment in all further deliveries of the Memorandum.

9. Indemnification .

(a) The Company will: (i) indemnify and hold harmless the Placement Agent, its selected dealers and their respective affiliates, officers, directors, employees and each person, if any, who controls the Placement Agent within the meaning of the Act (each an " **Indemnitee** ") against, and pay or reimburse each Indemnitee for, any and all losses, claims, damages, liabilities or expenses whatsoever (or actions or proceedings or investigations in respect thereof), joint or several (which will, for all purposes of this Agreement, include, but not be limited to, all reasonable costs of defense and investigation and all reasonable attorneys' fees and disbursements, including appeals), to which any Indemnitee may become subject (x) under the Act or otherwise, in connection with the offer and sale of the Units, and (y) as a result of the breach of any representation, warranty or covenant made by the Company herein, regardless whether such losses, claims, damages, liabilities or expenses shall result from any claim of any Indemnitee or any third party; and (ii) reimburse each Indemnitee for any legal or other expenses reasonably incurred in connection with investigating or defending against any such loss, claim, action, damage or liability; *provided* , *however* , that the Company will not be liable in any such case to the extent that any such claim, damage or liability results from (A) an untrue statement or alleged untrue statement of a material fact made in the Memorandum, or an omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, made solely in reliance upon and in conformity with written information furnished to the Company by the Placement Agent specifically for use in the preparation thereof, (B) any violations by the Placement Agent of the Act or state securities laws which does not result from a violation thereof by the Company or any of its affiliates or (C) fraud, willful misconduct or gross negligence of the Placement Agent. In addition to the foregoing agreement to indemnify and reimburse, the Company will indemnify and hold harmless each Indemnitee from and against any and all losses, claims, damages, liabilities or expenses whatsoever (or actions or proceedings or investigations in respect thereof), joint or several (which shall for all purposes of this Agreement, include, but not be limited to, all reasonable costs of defense and investigation and all reasonable attorneys' fees, including appeals) to which any Indemnitee may become subject insofar as such costs, expenses, losses, claims, damages or liabilities arise out of or are based upon the claim of any person or entity that he or it is entitled to broker's or finder's fees from any Indemnitee in connection with the Offering.

(b) The Placement Agent will indemnify and hold harmless the Company, its officers, directors, employees and each person, if any, who controls the Company and such persons within the meaning of the Act against, and pay or reimburse any such person for, any and all losses, claims, damages or liabilities or expenses whatsoever (or actions, proceedings or investigations in respect thereof), joint or several, to which the Company or any such person may become subject under the Act or otherwise, in connection with the offer and sale of the Units, whether such losses, claims, damages, liabilities or expenses (or actions, proceedings or investigations in respect thereof) shall result from any claim of the Company, any of its officers, directors, employees, agents, any person who controls the Company and such persons within the meaning of the Act or any third party, insofar as such losses, claims, damages or liabilities are based upon (A) any untrue statement or alleged untrue statement of any material fact contained in the Memorandum, but only with reference to information contained in the Memorandum relating to the Placement Agent, or an omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, if made or omitted in reliance upon and in conformity with information furnished to the Company by the Placement Agent or any such controlling persons, specifically for use in the preparation thereof, or (B) fraud, willful misconduct or gross negligence of the Placement Agent. The Placement Agent will reimburse the Company or any such person for any legal or other expenses reasonably incurred in connection with investigating or defending against any such loss, claim, damage, liability or action, proceeding or investigation to which such indemnity obligation applies, including appeals. Notwithstanding the foregoing, (i) in no case shall the Placement Agent have any liability to any person under this Section 9(b) for the gross negligence, fraud or willful misconduct of the Company or any person entitled to indemnification hereunder and (ii) in no event shall the Placement Agent's indemnification obligation hereunder exceed the fees payable to it hereunder.

(c) Promptly after receipt by an indemnified party under this Section 9 of notice of the commencement of any action, claim, proceeding or investigation (the " **Action** "), such indemnified party, if a claim in respect thereof is to be made against the indemnifying party under this Section 9, will notify the indemnifying party of the commencement thereof, but the omission to so notify the indemnifying party will not relieve it from any liability which it may have to any indemnified party under this Section 9 unless the indemnifying party has been substantially prejudiced by such omission. The indemnifying party will be entitled to participate in, and, to the extent that it may wish, jointly with any other indemnifying party, to assume the defense thereof subject to the provisions herein stated, with counsel reasonably satisfactory to such indemnified party. The indemnified party will have the right to employ separate counsel in any such Action and to participate in the defense thereof, but the fees and expenses of such counsel will not be at the expense of the indemnifying party if the indemnifying party has assumed the defense of the Action with counsel reasonably satisfactory to the indemnified party, *provided , however* , that if the indemnified party shall be requested by the indemnifying party to participate in the defense thereof or shall have concluded in good faith and specifically notified the indemnifying party either that there may be specific defenses available to it which are different from or additional to those available to the indemnifying party or that such Action involves or could have a material adverse effect upon it with respect to matters beyond the scope of the indemnity agreements contained in this Agreement, then the counsel representing it, to the extent made necessary by such defenses, shall have the right to direct such defenses of such Action on its behalf and in such case the reasonable fees and expenses of such counsel in connection with any such participation or defenses shall be paid by the indemnifying party. No settlement of any Action against an indemnified party will be made without the consent of the indemnifying party and the indemnified party, which consent shall not be unreasonably withheld or delayed in light of all factors of importance to such party and no indemnifying party shall be liable to indemnify any person for any settlement of any such claim effected without such indemnifying party's consent.

10. Contribution .

To provide for just and equitable contribution, if (i) an indemnified party makes a claim for indemnification pursuant to Section 9 hereof and it is finally determined, by a judgment, order or decree not subject to further appeal that such claims for indemnification may not be enforced, even though this Agreement expressly provides for indemnification in such case; or (ii) any indemnified or indemnifying party seeks contribution under the Act, the 1934 Act, or otherwise, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Placement Agent on the other in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Placement Agent on the other shall be deemed to be in the same proportion as the total net proceeds from the Offering (before deducting expenses) received by the Company bear to the total commissions and fees actually received by the Placement Agent. The relative fault, in the case of an untrue statement, alleged untrue statement, omission or alleged omission will be determined by, among other things, whether such statement, alleged statement, omission or alleged omission relates to information supplied by the Company or by the Placement Agent, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement, alleged statement, omission or alleged omission. The Company and the Placement Agent agree that it would be unjust and inequitable if the respective obligations of the Company and the Placement Agent for contribution were determined by *pro rata* allocation of the aggregate losses, liabilities, claims, damages and expenses or by any other method or allocation that does not reflect the equitable considerations referred to in this Section 10. No person guilty of a fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) will be entitled to contribution from any person who is not guilty of such fraudulent misrepresentation. For purposes of this Section 10, each person, if any, who controls the Placement Agent within the meaning of the Act will have the same rights to contribution as the Placement Agent, and each person, if any, who controls the Company within the meaning of the Act will have the same rights to contribution as the Company, subject in each case to the provisions of this Section 10. Anything in this Section 10 to the contrary notwithstanding, no party will be liable for contribution with respect to the settlement of any claim or action effected without its written consent. This Section10 is intended to supersede, to the extent permitted by law, any right to contribution under the Act, the 1934 Act or otherwise available.

11. Termination . (a) The Offering may be terminated by the Placement Agent at any time prior to the expiration of the Offering Period in the event that: (i) any of the representations, warranties or covenants of the Company contained herein, in the Memorandum or in any other Transaction Document shall prove to have been false or misleading in any material respect when actually made, (ii) the Company shall have failed to perform any of its material obligations hereunder or under any other Transaction Document; or (iii) there shall occur any event, within the control of the Company, which could materially adversely affect the transactions contemplated hereby or the other Transaction Documents or the ability of the Company to perform thereunder. In such event, the Placement Agent shall be entitled to receive from the Company, within thirty (30) business days of the Termination Date, in addition to other rights and remedies it may have hereunder, at law or otherwise, an amount equal to the sum of: (A) any and all Agent's Fee which would have been earned through the Termination Date based on amounts in the Escrow Account that, but for the termination would have been available in normal course for release to the Company at a Closing and shall retain any Agent's Fee for any closings previously consummated; (B) the Agent's Expense Allowance based on amounts in the Escrow Account that, but for the termination would have been available in normal course to be paid to the Placement Agent at a Closing and shall retain any Agent's Expense Allowance for any closings previously consummated [(A) and (B) collectively, the " **Termination Amount** "] and (C) all amounts which may become payable in respect of Post-Closing Investors pursuant to Section 4(g) hereof. In addition, in the event such termination occurs prior to the time that a Closing has been consummated and there are no funds in the Escrow Account, the Placement Agent will be entitled, upon presentation of a written accounting therefor in reasonable detail (but without the need to include the underlying statements or evidence of payment), to prompt reimbursement of its actual, out-of-pocket expenses related to the Offering, including but not limited to fees and expenses of legal counsel, travel expenses and the fees and expenses of outside experts, if any, retained to assist the Placement Agent with due diligence (the foregoing hereinafter referred to as the " **Expense Reimbursement** ").

(b) This Offering may be terminated by the Company at any time prior to the expiration of the Offering Period in the event that the Placement Agent shall have failed to perform any of its material obligations hereunder (excluding failing to raise the Minimum Amount hereunder). In the event of any such termination by the Company, the Placement Agent shall not be entitled to any amounts whatsoever except for the Expense Reimbursement.

(c) This Offering may also be terminated by the Company at any time prior to the expiration of the Offering Period for any reason not covered in Section 11(b) above (the " **Company 11(c) Termination** "). In such event, the Placement Agent shall be entitled to receive from the Company (i) the Termination Amount (or if at the time of such termination, there are no funds in the Escrow Account that have or are to be released to Company, the Expense Reimbursement) and (ii) all amounts which may become payable in respect of Post-Closing Investors pursuant to Section 4(g) hereof **.** In addition, if within twelve (12) months after the Company 11(c) Termination, the Company conducts a public or private offering of its securities or enters into a letter of intent with respect to the foregoing, then upon the closing of any such transaction, the Placement Agent shall be entitled to receive from the Company an amount equal to five (5%) of the gross proceeds raised in such transaction (the " **Company 11 (c) Termination Amount** "). Notwithstanding the foregoing, in no event shall any fees or Termination Amount be payable to the Placement Agent in connection with any transactions contemplated by the Ariston Merger.

(d) Upon any such termination, the Placement Agent and the Company will cause, via written instructions to the Escrow Agent, all monies received with respect to the subscriptions for Units not accepted by the Company to be promptly returned to such subscribers without interest, penalty, expense or deduction.

(e) Before any termination by the Placement Agent under Section 11(a) or by the Company under Section 11(b) or Section 11(c) shall become effective, the terminating party shall give written notice to the other party of its intention to terminate the Offering (the " **Termination Notice** "). The Termination Notice shall specify the grounds for the proposed termination, except in the case of a Section 11(c) termination. If the specified grounds for termination, or their resulting adverse effect on the Transactions, are curable, then the other party shall have ten (10) days from the Termination Notice within which to remove such grounds or to eliminate all of their material adverse effects on the Transactions contemplated hereby; otherwise, the Offering shall terminate.

(f) Subject to section 12 below, this Agreement shall terminate upon the occurrence and satisfactory completion of the Offering and sale of the Units, unless earlier terminated as provided herein.

12. Survival . The obligations of the parties to pay any costs and expenses hereunder and to provide indemnification pursuant to Section 9 and contribution pursuant to Section 10 shall survive any termination or completion of the Offering. The respective indemnities, agreements, representations, warranties and other statements of the Company or the Placement Agent set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of, and regardless of any access to information by, the Company or the Placement Agent, or any of their officers or directors or any controlling person thereof, and will survive the sale of the Units. In addition, the provisions of Sections 4(g), 6(d), 6(i), 11 through 20 hereof shall also survive the termination or expiration of this Offering.

13. Governing Law; Jurisdiction . This Agreement shall be deemed to have been made and delivered in New York City and shall be governed as to validity, interpretation, construction, affect and in all other respects by the internal laws of the State of New York. **THE PARTIES HERETO AGREE TO SUBMIT ALL CONTROVERSIES TO ARBITRATION IN ACCORDANCE WITH THE PROVISIONS SET FORTH BELOW AND UNDERSTAND AND AGREE THAT (A) ARBITRATION IS FINAL AND BINDING ON THE PARTIES, (B) THE PARTIES ARE WAIVING THEIR RIGHTS TO SEEK REMEDIES IN COURT, INCLUDING THE RIGHT TO A JURY TRIAL, (C) PRE-ARBITRATION DISCOVERY IS GENERALLY MORE LIMITED AND DIFFERENT FROM COURT PROCEEDINGS, (D) THE ARBITRATOR'S AWARD IS NOT REQUIRED TO INCLUDE FACTUAL FINDINGS OR LEGAL REASONING AND ANY PARTY'S RIGHT TO APPEAL OR TO SEEK MODIFICATION OF RULINGS BY ARBITRATORS IS STRICTLY LIMITED, (E) THE PANEL OF FINANCIAL INDUSTRY REGULATORY AUTHORITY ("FINRA") ARBITRATORS WILL TYPICALLY INCLUDE A MINORITY OF ARBITRATORS WHO WERE OR ARE AFFILIATED WITH THE SECURITIES INDUSTRY, AND (F) ALL CONTROVERSIES WHICH MAY ARISE BETWEEN THE PARTIES CONCERNING THIS AGREEMENT SHALL BE DETERMINED BY ARBITRATION PURSUANT TO THE RULES THEN PERTAINING TO FINRA IN THE CITY OF NEW YORK, STATE OF NEW YORK. JUDGMENT ON ANY AWARD OF ANY SUCH ARBITRATION MAY BE ENTERED IN THE SUPREME COURT OF THE STATE OF NEW YORK OR IN ANY OTHER COURT HAVING JURISDICTION OVER THE PERSON OR PERSONS AGAINST WHOM SUCH AWARD IS RENDERED. THE PARTIES AGREE THAT THE DETERMINATION OF THE ARBITRATORS SHALL BE BINDING AND CONCLUSIVE UPON THEM. ANY NOTICE OF SUCH ARBITRATION OR FOR THE CONFIRMATION OF ANY AWARD IN ANY ARBITRATION SHALL BE SUFFICIENT IF GIVEN IN ACCORDANCE WITH THE PROVISIONS OF THIS AGREEMENT. THE PREVAILING PARTY, AS DETERMINED BY SUCH ARBITRATORS IN AN ARBITRATION PROCEEDING SHALL BE ENTITLED TO COLLECT ANY COSTS, DISBURSEMENTS AND REASONABLE ATTORNEY'S FEES FROM THE OTHER PARTY.**

14. Notices . All notices and other communications given or made pursuant hereto shall be in writing and shall be deemed to have been duly given or made as of the date delivered personally, or the date mailed if mailed by registered or certified mail (postage prepaid, return receipt requested) to the parties at the following addresses (or at such other address for a party as shall be specified by like changes of address which shall be effective upon receipt) or sent by electronic transmission, with confirmation received, if sent to the Placement Agent, will be mailed, delivered or telefaxed and confirmed to: National Securities Corporation, 330 Madison Avenue, 18 th Floor, New York, New York 10017, Attention: Jonathan Rich, telefax number (212) 380-2828, with a copy to: Littman Krooks LLP, 655 Third Avenue, 20 th Floor, New York, New York 10017, Attention: Steven D. Uslaner, Esq., telefax number (212) 490-2990, and if sent to the Company, to: Manhattan Pharmaceuticals, Inc.48 Wall Street, New York, NY 10005, Attention: Michael G. McGuinness, CFO and COO, telefax number (___) ___-____, with a copy to: Lowenstein Sandler PC, 65 Livingston Avenue, Roseland, NJ 07068, Attn: Anthony Pergola, Esq., telefax number (973) 597-2400.

15. Limitation of Engagement to the Company. The Company acknowledges that the Placement Agent has been retained only by the Company, that the Placement Agent is providing services hereunder as an independent contractor (and not in any fiduciary or agency capacity) and that the Company's engagement of the Placement Agent is not deemed to be on behalf of, and is not intended to confer rights upon, any shareholder, owner or partner of the Company or any other person not a party hereto as against the Placement Agent or any of its affiliates, or any of its or their officers, directors, controlling persons (within the meaning of Section 15 of the Act or Section 20 of the 1934 Act), employees or agents, other than the indemnification and contribution provisions set forth in Sections 9 and 10 hereof. Unless otherwise expressly agreed in writing by the Placement Agent or as provided in Sections 9 or 10 hereof, no one other than the Company is authorized to rely upon this Agreement or any other statements or conduct of the Placement Agent, and no one other than the Company is intended to be a beneficiary of this Agreement.

16. Limitation of Liability to the Company . Except as provided in Section 9 (Indemnification) and Section 10 (Contribution), neither the Placement Agent nor any of its affiliates or any of its or their officers, directors, controlling persons (within the meaning of Section 15 of the Act or Section 20 of the 1934 Act), employees or agents shall have any liability to the Company, its security holders or creditors, or any person asserting claims on behalf of or in the right of the Company (whether direct or indirect, in contract, tort, for an act of negligence or otherwise) for any losses, fees, damages, liabilities, costs, expenses or equitable relief arising out of or relating to this Agreement or the services rendered hereunder, except for losses, fees, damages, liabilities, costs or expenses that arise out of or are based on any action of or failure to act by the Placement Agent and that are finally determined (by a court of competent jurisdiction and after exhausting all appeals) to have resulted from the fraud, gross negligence, or willful misconduct of the Placement Agent.

17. Waiver of Right to Appoint Placement Agent Director. The Placement Agent hereby waives its right pursuant to Section 6(l)(i) of the Placement Agency Agreement dated November 19, 2008 to nominate, and to require the Company to use its best efforts to effect the appointment of, a member of the Board of Directors of the Company (the " **Placement Agent Director** ") and to require the Company to issue to the Placement Agent Director a warrant to purchase 1,000,000 shares of Common Stock at a per share exercise price equal to the greater of (i) the fair market value on the date of issuance or (ii) $.09.

18. Modification; Performance; Waiver . No provision of this Agreement may be changed or terminated except by a writing signed by the party or parties to be charged therewith. Unless expressly so provided, no party to this Agreement will be liable for the performance of any other party's obligations hereunder. Any party hereto may waive compliance by the other with any of the terms, provisions and conditions set forth herein; provided, however that any such waiver shall be in writing specifically setting forth those provisions waived thereby. No such waiver shall be deemed to constitute or imply waiver of any other term, provision or condition of this Agreement. This Agreement contains the entire agreement between the parties hereto and is intended to supersede any and all prior agreements between the parties relating to the same subject matter.

19. Counterparts . This Agreement may be executed in counterparts, each of which shall be deemed to be an original, and all of which taken together shall constitute one and the same agreement (and all signatures need not appear on anyone counterpart). In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof. This Agreement shall become effective when one or more counterparts has been signed and delivered by each of the parties hereto.

20. Severability . If any provision of this Agreement is held to be illegal, invalid or unenforceable under any present or future laws, such provision shall be fully severable. This Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part of this Agreement, and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of each such illegal, invalid or unenforceable provision there shall be deemed added automatically as a part of this Agreement a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible to cause such provision to be legal, valid and enforceable.

21. Headings . The captions and headings used in this Agreement are for convenience only and do not in any way affect, limit, amplify or modify the terms and provisions of this Agreement.

22. Miscellaneous. This Agreement shall inure to the benefit of, and be binding upon, the successors of the Placement Agent and of the Company. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, company or corporation, other than the parties hereto and their successors, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision hereof. The term "successors" shall not include any purchaser of the Units merely by reason of such purchase.

If the foregoing is in accordance with your understanding of our agreement, kindly sign and return this Agreement, whereupon it will become a binding agreement between the Company and the Placement Agent in accordance with its terms.

Very truly yours,

MANHATTAN PHARMACEUTICALS, INC

By: /s/ Michael G. McGuinness
Name: Michael G. McGuinness
Title: CFO and COO

Accepted and agreed to this
28th day of December, 2009.

NATIONAL SECURITIES CORPORATION

By: /s/ Jonathan C. Rich
Name: Jonathan C. Rich
Title: Head of Investment Banking

Exhibit 10.37

REGISTRATION RIGHTS AGREEMENT

This REGISTRATION RIGHTS AGREEMENT (this " **Agreement** ") is made as of March 2, 2010, by and among (i) Manhattan Pharmaceuticals, Inc., a Delaware corporation (the " **Company** "), (ii) each person listed on **Exhibit A** attached hereto, as may be amended from time to time (each an " **Investor** " and, collectively, the " **Investors** "), (iii) National Securities Corporation, a Washington corporation (the " **Placement Agent** ") and (iv) each person or entity that subsequently becomes a party to this Agreement pursuant to, and in accordance with, the provisions of Section 13 hereof (each an " **Investor Permitted Transferee** " and, collectively, the " **Investor Permitted Transferees** ").

WHEREAS, the Company has agreed to issue and sell to the Investors (the " **Offering** "), and the Investors have agreed to purchase from the Company, an aggregate of up to 160 units (each a " **Unit** " and, collectively, the " **Units** ") for an aggregate purchase price of $4,000,000 (the " **Offering Amount** "), subject to an overallotment option to purchase up to an additional 40 Units ($1,000,000) (the " **Overallotment Amount** "), priced at $25,000 per Unit, with each Unit consisting of (i) 357,143 shares (each a " **Unit Share** " and, collectively, the " **Unit Shares** ") of the Company's common stock, $0.001 par value per share (the " **Common Stock** "), and (ii) 535,714 warrants (each a " **Warrant** " and, collectively, the " **Warrants** "), each of which will entitle the holder to purchase one additional share of Common Stock (each a " **Warrant Share** " and collectively, the " **Warrant Shares** ") as provided in the applicable subscription agreement between the Company and each of the Investors (the " **Subscription Agreement** "); and

WHEREAS, the Company has agreed to provide certain registration rights with respect to the resale of the Unit Shares, all on the terms and conditions provided herein; and

WHEREAS, the terms of the Subscription Agreement provide that it shall be a condition precedent to the closing of the transactions thereunder, for the Company and the Investors to execute and deliver this Agreement.

NOW, THEREFORE, in consideration of the promises and mutual covenants contained herein, the parties hereto hereby agree as follows:

1. DEFINITIONS . The following terms shall have the meanings provided therefore below or elsewhere in this Agreement as described below:

" **Business Day** " means a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business.

" **Closing** " shall have the meaning ascribed to such term in the Subscription Agreement.

" **Effectiveness Date** " means, (i) with respect to the Initial Registration Statement, as soon as practicable, but if the Initial Registration Statement is not subject to a SEC review no later than ninety (90) calendar days after the Filing Date, and if the Initial Registration Statement is subject to a SEC review no later than one hundred twenty (120) calendar days after the Filing Date, and (ii) with respect to any additional Registration Statements which may be required to be filed hereunder pursuant to Section 3(d) or otherwise, not later than ninety (90) calendar days following the date on which the additional Registration Statement is required to be filed hereunder if it is not subject to a SEC review or if the additional Registration Statement is subject to a SEC review one hundred twenty (120) calendar days after the date such Registration Statement is required to be filed hereunder.

" **Exchange Act** " shall mean the Securities Exchange Act of 1934, as amended, and all of the rules and regulations promulgated thereunder.

" **Filing Date** " shall mean, with respect to the Initial Registration Statement, within sixty (60) calendar days after the Final Closing, provided , however , that if the Filing Date falls on a Saturday, Sunday or other day, that the SEC is closed for business the Filing Date shall be extended to the next Business Day.

" **Final Closing** " shall mean the meaning ascribed to such term in the Confidential Private Placement Memorandum.

" **First Closing** " shall have the meaning ascribed to such term in the Subscription Agreement.

" **Holder** " or " **Holders** " shall mean the holder or holders, as the case may be, from time to time of Registrable Securities.

" **Initial Nordic Registration Statement** " shall mean the registration statement filed by the Company with the SEC (File No. 333-150580), as amended or supplemented from time to time.

" **Initial Registration Statement** " shall mean the initial Registration Statement filed pursuant to this Agreement.

" **Investor Permitted Transferees** " as defined in the Preamble.

" **Investors** " shall mean, collectively, the Investors and the Investor Permitted Transferees; provided , however , that the term "Investors" shall not include any of the Investors or any of the Investor Permitted Transferees that do not own or hold any Registrable Securities.

" **Nordic Registrable Securities** " shall mean any securities held by Nordic which the Company is required to register pursuant to the Registration Rights Agreement dated February 25, 2008 by and among the Company and Nordic Biotech Venture Fund II K/S ("Nordic").

" **Nordic Registration Statement** " shall mean any registration statement filed pursuant to the Registration Rights Agreement, dated February 25, 2008, by and among the Company and Nordic Biotech Venture Fund II K/S, as amended from time to time, including the Initial Nordic Registration Statement.

" **Person** " means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or agency or subdivision thereof) or other entity of any kind.

" **Placement Agent** " as defined in the Preamble.

" **Registrable Securities** " shall mean the Unit Shares.

" **Registration Statement** " means any one or more registration statements filed (and/or required to be filed pursuant hereto) with the SEC by the Company on Form S-3, or in the event the Company is not eligible to use Form S-3, on Form S-1, for the purpose of registering the Registrable Securities, including (in each case) the prospectus, amendments and supplements to such registration statement or prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in such registration statement. The term "Registration Statement" shall include, but not be limited to, the Initial Registration Statement and shall not include any Nordic Registration Statement.

" **Rule 144** " shall mean Rule 144 promulgated by the SEC pursuant to the Securities Act and any successor or substitute rule, law or provision.

" **Rule 172** " means Rule 172 promulgated by the SEC pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the SEC having substantially the same purpose and effect as such Rule.

" **Rule 415** " means Rule 415 promulgated by the SEC pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the SEC having substantially the same purpose and effect as such Rule.

" **Rule 424** " means Rule 424 promulgated by the SEC pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the SEC having substantially the same purpose and effect as such Rule.

" **SEC** " shall mean the United States Securities and Exchange Commission.

" **SEC Guidance** " means (i) any publicly-available written guidance, or rule of general applicability of the SEC staff, or (ii) oral or written comments, requirements or requests of the SEC staff to the Company in connection with the review of a Registration Statement.

" **Securities Act** " shall mean the Securities Act of 1933, as amended, and all of the rules and regulations promulgated thereunder.

" **Trading Day** " means (a) if the Common Stock is listed or quoted on the NASDAQ Market, then any day during which securities are generally eligible for trading on the NASDAQ Market, or (b) if the Common Stock is not then listed or quoted and traded on the NASDAQ Market, then any Business Day.

" **Unit Shares** " as defined in the preamble.

" **Warrant Shares** " as defined in the preamble.

2. EFFECTIVENESS; This Agreement shall become effective and legally binding only if the First Closing occurs.

3. MANDATORY REGISTRATION .

(a) The Company shall be required to file an Initial Registration Statement on or prior to the Filing Date registering the Registrable Securities for resale by the Holders as selling stockholders thereunder. On or prior to the Filing Date, the Company shall prepare and file with the SEC an Initial Registration Statement for the purpose of registering under the Securities Act the resale of all, or such portion as permitted by SEC Guidance (and the Company shall make a commercially reasonable effort to advocate with the SEC for the registration of all or the maximum number of the Registrable Securities as permitted by SEC Guidance) of the Registrable Securities by, and for the account of, the Holders as selling stockholders thereunder, that are not then registered on an effective Registration Statement for an offering to be made on a continuous basis pursuant to Rule 415. No other securities shall be included in the Initial Registration Statement that is filed except for the Registrable Securities and the Nordic Registrable Securities. Each Registration Statement (including the Initial Registration Statement) shall contain the "Plan of Distribution" included in the Investor Questionnaire, in substantially the form of which was provided to Investors with the Subscription Agreement (except if otherwise required pursuant to written comments received from the SEC upon a review of such Registration Statement). The Company shall cause a Registration Statement to be declared effective by the SEC under the Securities Act as promptly as practicable after the filing thereof, but in any event on or prior to the applicable Effectiveness Date.

(b) The Company shall be required to keep a Registration Statement effective until such date that is the earlier of (the " **Effectiveness Period** ") (i) the date as of which all of the Holders as selling stockholders thereunder may sell all of the Registrable Securities registered for resale thereon without restriction pursuant to Rule 144 or (ii) the date when all of the Registrable Securities registered thereunder shall have been sold (such date is referred to herein as the " **Mandatory Registration Termination Date** "). Thereafter, the Company shall be entitled to withdraw such Registration Statement and the Holders shall have no further right to offer or sell any of the Registrable Securities registered for resale thereon pursuant to the respective Registration Statement (or any prospectus relating thereto).

(c) Notwithstanding any other provision of this Agreement, if any SEC Guidance sets forth a limitation on the number of Registrable Securities to be registered in the Initial Registration Statement (and the Company has made a commercially reasonable effort to advocate with the SEC for the registration of all or a greater number of Registrable Securities), the number of Registrable Securities to be registered on such Registration Statement will be reduced on a pro rata basis among the Investors and Nordic based on the total number of unregistered Unit Shares and Nordic Registrable Securities held by the Investors and Nordic, respectively, on a fully diluted basis. The Company shall file a new registration statement as soon as reasonably practicable covering the resale by the Holders and Nordic of not less than the number of such Registrable Securities and Nordic Registrable Securities, respectively, that are not registered in the Initial Registration Statement. The Company shall not be liable for liquidated damages under Section 5(a) as to any Registrable Securities which are not permitted by the SEC to be included in a Registration Statement due solely to SEC Guidance from time to time. In such case, any liquidated damages payable under Section 5(a) shall be calculated to apply only the percentage of Registrable Securities which are permitted in accordance with SEC Guidance to be included in such Registration Statement.

(d) If during the Effectiveness Period, subject to Section 3(a) and Section 3(c) , the Company becomes aware that the number of Registrable Securities at any time exceeds the number of Registrable Securities then registered for resale in a Registration Statement, then the Company shall file as soon as reasonably practicable an additional Registration Statement covering the resale by the Holders of not less than the number of such Registrable Securities that are not then registered.

(e) Notwithstanding any other provision of this Agreement, if during the Effectiveness Period any of the Registrable Securities become eligible for resale without restriction pursuant to Rule 144 (the " **Rule 144 Eligible Securities** ") then the number of Registrable Securities outstanding at any one time shall be reduced by the number of Rule 144 Eligible Securities and the Company may at its option file an amendment to any Registration Statement to reduce the number of Registrable Securities accordingly. The Company acknowledges that the Company's obligation to file its periodic disclosure documents for the twelve (12) month period preceding the date of sale is a "restriction" as that term is used in the first sentence of this Section 3(e) .

4. PIGGYBACK REGISTRATION .

(a) If, at any time, commencing on the date of the First Closing, the Company proposes to prepare and file with the SEC a registration statement under the Securities Act other than a Nordic Registration Statement, the Company will give written notice to each Holder and the Placement Agent of its intention to do so by certified mail and shall include all of the Registrable Securities in such registration statement; provided , however , that in connection with any offering involving an underwriting of shares of Common Stock, the Company shall not be required to include the Registrable Securities of any Holder in such registration statement unless they accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by the Company. In the event that the underwriters determine that less than all of the Registrable Securities required to be registered can be included in such offering, then the Registrable Securities that are included shall be apportioned, among the Investors on a pro rata basis based on the total number of unregistered Unit Shares held by such Investors and requested to be included in the Registration Statement on a fully diluted basis. The Company shall use its best efforts to effect the registration under the Securities Act of the Registrable Securities at the Company's sole cost and expense and at no cost or expense to the Holders (other than any commission, discounts or counsel fees payable by the Holders, as further provided in Section 7 hereof).

(b) Notwithstanding the preceding provisions of this Section 4 , the Company shall have the right any time after it shall have given written notice pursuant to this Section 4 (irrespective of whether any written request for inclusion of such securities shall have already been made) to elect not to file any proposed registration statement, or to withdraw the same after the filing but prior to the effective date thereof.

(c) The Company shall use its commercially reasonable efforts to cause the registration statement filed pursuant to this Section 4 to become effective as promptly as possible under the circumstances at the time prevailing and, if any stop order shall be issued by the SEC in connection therewith, to use its reasonable efforts to obtain the removal of such order.

(d) To the extent any Registrable Securities of the Holders are included in such registration statement, the Company shall notify each Holder by facsimile or e-mail as promptly as practicable, and in any event, within two (2) Trading Days, after such registration statement is declared effective and shall simultaneously provide the Holders with a copy of any related prospectus to be used in connection with the sale or other disposition of the Registrable Securities covered thereby.

5. PENALTIES/SUSPENSION OF A REGISTRATION STATEMENT .

(a) If: (i) the Initial Registration Statement and any other Registration Statement other than a Nordic Registration Statement is not filed on or prior to the Filing Date, or (ii) the Company fails to file with the SEC a request for acceleration in accordance with Rule 461 promulgated under the Securities Act, within five (5) Trading Days of the date that the Company is notified (orally or in writing, whichever is earlier) by the SEC that the Initial Registration Statement or any other Registration Statement will not be "reviewed" or not be subject to further review and the Company has obtained any required clearance from the Financial Industry Regulatory Authority, Inc. (" **FINRA** "), or (iii) prior to the Effectiveness Date of the Initial Registration Statement or any other Registration Statement, the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the SEC in respect of such Initial Registration Statement or any other Registration Statement within ten (10) Business Days after the receipt of comments by or notice from the SEC that such amendment is required in order for such Initial Registration Statement or any other Registration Statement to be declared effective, or (iv) subject to the tolling provisions contained herein, as to, in the aggregate among all Investors on a pro rata basis based on the amount of Registrable Securities held by each of them, respectively, the lesser of (A) all of the Registrable Securities and (B) the maximum number of Registrable Securities permitted by SEC Guidance (collectively, the " **Initial Shares** "), a Registration Statement registering for resale all of the Initial Shares is not declared effective by the SEC by the Effectiveness Date, or (v) after the Effectiveness Date of the Initial Registration Statement or any other Registration Statement, subject to the tolling provisions contained herein, such Initial Registration Statement or other Registration Statement ceases for any reason to remain continuously effective as to all Registrable Securities included in such Initial Registration Statement or other Registration Statement, as applicable, or the Investors are otherwise not permitted to utilize the Prospectus therein to resell such Registrable Securities, for more than ten (10) consecutive Business Days or more than an aggregate of twenty (20) Business Days during any twelve (12) month period (which need not be consecutive Business Days), provided , however , that no such payments shall be required in connection with a Suspension Period (as hereinafter defined) (any such failure or breach being referred to as an " **Event** ," and for purposes of clause (i), (iv) or (v) the date on which such Event occurs, or for purposes of clause (ii) the date on which such five (5) Trading Day period is exceeded, or for purposes of clause (iii) the date which such ten (10) Business Day period is exceeded, or for purposes of clause (v) the date on which such ten (10) or twenty (20) Business Day period, as applicable, is exceeded being referred to as " **Event Date** "), then, in addition to any other rights the Investors may have hereunder or under applicable law, on each such Event Date and on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall, subject to Section 3(c) , pay to each Investor on a monthly basis within three (3) Business Days of the end of the month an amount in cash, as partial liquidated damages and not as a penalty, equal to one (1.0%) percent of the aggregate purchase price paid by such Investor pursuant to the Subscription Agreement for any Registrable Securities then held by such Investor (as applicable under clause (iv)) that are not then eligible for resale pursuant to the Initial Registration Statement or other Registration Statement. The parties agree that the maximum aggregate liquidated damages payable to an Investor under this Agreement shall be ten (10%) percent of the aggregate amount paid by such Investor for its respective Registrable Securities pursuant to the Subscription Agreement. If the Company fails to pay any partial liquidated damages pursuant to this Section 5(a) in full within ten (10) calendar days after the date payable, the Company will be required to pay such liquidation damages in cash only and shall pay interest thereon at a rate of eighteen (18%) percent per annum (or such lesser maximum amount that is required to be paid by applicable law) to the Investor, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full; provided , however , that if the tenth calendar day after the date payable is not a Business Day then the payment shall be due on the next Business Day. The partial liquidated damages pursuant to the terms hereof shall apply on a daily pro-rata basis for any portion of a month prior to the cure of an Event.

(b) The Company shall notify the Placement Agent by facsimile or e-mail as promptly as practicable, and in any event, within one (1) Trading Day, after a Registration Statement is declared effective and shall simultaneously provide the Placement Agent with an electronic copy of any related prospectus to be used in connection with the sale or other disposition of the Registrable Securities covered thereby. The Placement Agent shall notify each Holder as promptly as practicable, and in any event, within one (1) Trading Day, after receipt of such notice and shall simultaneously provide each Holder with an electronic copy of any such related prospectus to be used in connection with the sale or other disposition of the Registrable Securities covered thereby. Failure to notify the Holders in accordance with this Section 5(b) shall be deemed an Event under Section 5(a) .

(c) No Investor shall be entitled to a payment pursuant to this Section 5 if effectiveness of a Registration Statement has been delayed or a prospectus has been unavailable as a result of (i) a failure by such Investor to promptly provide on request by the Company the information required under the Subscription Agreement or this Agreement or requested by the SEC as a condition to effectiveness of a Registration Statement; (ii) the provision of inaccurate or incomplete information by such Investor; or (iii) a statement or determination of the SEC that any provision of the rights of the Investor under this Agreement are contrary to the provisions of the Securities Act.

6. OBLIGATIONS OF THE COMPANY . In the event the Company files a Registration Statement with the SEC in connection with Section 3 or Section 4 hereof that covers the Registrable Securities and uses its commercially reasonable efforts to cause a Registration Statement to become effective, the Company shall, as expeditiously as reasonably possible:

(a) Prepare and file with the SEC such amendments and supplements to a Registration Statement and the prospectus used in connection therewith as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all Registrable Securities covered by a Registration Statement;

(b) Furnish to the selling Holders such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents (including, without limitation, prospectus amendments and supplements as are prepared by the Company in accordance with Section 6(a) above) as the selling Holders may reasonably request in order to facilitate the disposition of such selling Holders' Registrable Securities;

(c) Use commercially reasonable efforts to comply with all applicable rules and regulations of the SEC under the Securities Act and the Exchange Act, including, without limitation, Rule 172 under the Securities Act, file any final prospectus, including any supplement or amendment thereof, with the SEC pursuant to Rule 424 under the Securities Act, promptly inform the Holders in writing if, at any time during a period of effectiveness, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Holders are required to deliver a prospectus in connection with any disposition of Registrable Securities; notify the selling Holders of the happening of any event as a result of which the prospectus included in or relating to a Registration Statement contains an untrue statement of a material fact or omits any fact necessary to make the statements therein not misleading; and, thereafter, subject to Section 12 hereof, the Company will promptly prepare (and, when completed, give notice and provide a copy thereof to each selling Holder) a supplement or amendment to such prospectus so that such prospectus will not contain an untrue statement of a material fact or omit to state any fact necessary to make the statements therein not misleading; provided , however , that upon such notification by the Company (which shall be a Suspension pursuant to Section 12), the selling Holders will not offer or sell Registrable Securities until the Company has notified the selling Holders that it has prepared a supplement or amendment to such prospectus and filed it with the SEC or, if the Company does not then meet the conditions for the use of Rule 172, delivered copies of such supplement or amendment to the selling Holders (it being understood and agreed by the Company that the foregoing proviso shall in no way diminish or otherwise impair the Company's obligation to promptly prepare a prospectus amendment or supplement as above provided in this Section 6(c) and deliver copies of same as above provided in Section 6(b) hereof); and

(d) Use its best efforts to register and qualify the Registrable Securities covered by a Registration Statement under such other securities or Blue Sky laws of such states as shall be reasonably appropriate in the opinion of the Company, provided , however , that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, and provided further that (notwithstanding anything in this Agreement to the contrary with respect to the bearing of expenses) if any jurisdiction in which any of such Registrable Securities shall be qualified shall require that expenses incurred in connection with the qualification therein of any such Registrable Securities be borne by the selling Holders, then the selling Holders shall, to the extent required by such jurisdiction, pay their pro rata share of such qualification expenses.

(e) Subject to the terms and conditions of this Agreement, including Section 3 and Section 4 hereof, the Company shall use its commercially reasonable efforts to (i) prevent the issuance of any stop order or other suspension of effectiveness of a Registration Statement, or the suspension of the qualification of any of the Registrable Securities for sale in any jurisdiction in the United States, and (ii) if such an order or suspension is issued, obtain the withdrawal of such order or suspension at the earliest practicable moment and notify each holder of Registrable Securities of the issuance of such order and the resolution thereof or its receipt of notice of the initiation or threat of any proceeding such purpose.

(f) The Company shall (i) comply with all requirements of FINRA with regard to the issuance of the Registrable Securities and the listing thereof on the OTC Bulletin Board and such other securities exchange or automated quotation system, as applicable, and (ii) engage a transfer agent and registrar to maintain the Company's stock ledger for all Registrable Securities covered by a Registration Statement not later than the effective date of a Registration Statement.

(g) The Company will file a Registration Statement and all amendments and supplements thereto electronically on EDGAR.

7. OBLIGATIONS OF THE PLACEMENT AGENT AND THE HOLDERS .

(a) It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Agreement that the selling Holders shall furnish to the Company a completed Selling Stockholder Questionnaire in the form attached as Exhibit B hereto (the " **Selling Stockholder Questionnaire** ") and such other information regarding them and the securities held by them as the Company shall reasonably request and as shall be required in order to effect any registration by the Company pursuant to this Agreement. The Company shall not be required to include the Registrable Securities of any Holder who fails to furnish to the Company a fully completed Selling Stockholder Questionnaire at least three (3) Trading Days prior to the Filing Deadline. Additionally, each Holder shall promptly notify the Company of any changes in the information furnished in the Selling Stockholder Questionnaire or otherwise to the Company.

(b) Each Holder agrees to cooperate with the Company as reasonably requested by the Company in connection with the filing of any Registration Statement hereunder, unless such Holder has notified the Company in writing that such Holder elects to exclude all of its Registrable Securities from such Registration Statement.

(c) Each Holder agrees that, upon receipt of any notice from the Company of the happening of any event of the kind described in Section 6(c) , each Holder shall immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement covering such Registrable Securities until such Holders receipt of the copies of the supplemented or amended prospectus contemplated by Section 6(c) or receipt of notice that no supplement or amendment is required.

(d) Each Holder covenants and agrees that it will comply with the prospectus delivery requirements of the Securities Act as applicable to it or an exemption therefrom in connection with sale of Registrable Securities pursuant to any Registration Statement.

(e) Each Holder and the Placement Agent who are members or affiliated or associated with members of FINRA will agree, if requested by FINRA, to sign a lock-up, the form of which shall be satisfactory to FINRA (the " **FINRA Lock-Up** "), with respect to the Unit Shares, Warrant and Warrant Shares, in case of the Holders or, in the case of the Placement Agent, the warrant issued to the Placement Agent in connection with the transactions contemplated by the Subscription Agreement (the " **Placement Agent Warrants** ") and the shares of Common Stock issuable upon exercise thereof.

8. EXPENSES OF REGISTRATION .

(a) Except as set forth in Section 6(d) , all expenses incurred in connection with the registration of the Registrable Securities pursuant to this Agreement (excluding underwriting, brokerage and other selling commissions and discounts), including without limitation all registration and qualification and filing fees, printing, fees and disbursements of counsel for the Company shall be borne by the Company; provided , however **,** the Holders shall be required to pay the expenses of counsel and any other advisors for the Holders and any brokerage or other selling discounts or commissions and any other expenses incurred by the Holders for their own account.

(b) Until such time as all of the Registrable Securities have been sold pursuant to an effective Registration Statement, the Company shall take such reasonable action as the Holder may request (including, without limitation, promptly obtaining any required legal opinions from Company counsel necessary to effect the sale of the Registrable Securities under Rule 144 and paying the related fees and expenses of such counsel), all to the extent required from time to time to enable such Holder to sell the Registrable Securities without registration under the Securities Act pursuant to the provisions of Rule 144 under the Securities Act (or any successor provision). The Company further covenants to take such action and to provide such legal opinions within five (5) Business Days after receipt from such Holder (or its representative) of documentation reasonably required by the Company counsel to provide such opinion.

9. DELAY OF REGISTRATION . The Holders shall not take any action to restrain, enjoin or otherwise delay any registration as the result of any controversy which might arise with respect to the interpretation or implementation of this Agreement.

10. INDEMNIFICATION .

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and each officer and director of such selling Holder and each person, if any, who controls such selling Holder, within the meaning of the Securities Act, against any losses, claims, damages or liabilities, joint or several, to which they may become subject under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon (i) any untrue or alleged untrue statement of any material fact contained in a Registration Statement, in any preliminary prospectus or final prospectus relating thereto or in any amendments or supplements to a Registration Statement or any such preliminary prospectus or final prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; (ii) any blue sky application or other document executed by the Company specifically for that purpose or based upon written information furnished by the Company filed in any state or other jurisdiction in order to qualify any or all of the Registrable Securities under the securities laws thereof (any such application, document or information herein called a " **Blue Sky Application** "); (iii) the omission or alleged omission to state in a Blue Sky Application a material fact required to be stated therein or necessary to make the statements therein not misleading; (iv) any violation by the Company or its agents of any rule or regulation promulgated under the Securities Act applicable to the Company or its agents and relating to action or inaction required of the Company in connection with such registration of the Registrable Securities; or (v) any failure to register or qualify the Registrable Securities included in any such Registration Statement in any state where the Company or its agents has affirmatively undertaken or agreed in writing that the Company will undertake such registration or qualification on a Holder's behalf; and will reimburse such selling Holder, or such officer, director or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided , however , that the indemnity agreement contained in this Section 10(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, damage, liability or action to the extent that it arises out of or is based upon (i) an untrue statement or alleged untrue statement or omission made in connection with a Registration Statement, any preliminary prospectus or final prospectus relating thereto or any amendments or supplements to a Registration Statement or any such preliminary prospectus or final prospectus, in reliance upon and in conformity with written information furnished expressly for use in connection with a Registration Statement or any such preliminary prospectus or final prospectus by the selling Holders or (ii) at any time when the Company has advised the Holder in writing that the Company does not meet the conditions for use of Rule 172 and as a result that the Holder is required to deliver a current prospectus in connection with any disposition of Registrable Securities, an untrue statement or alleged untrue statement or omission in a prospectus that is (whether preliminary or final) corrected in any subsequent amendment or supplement to such prospectus that was delivered to the selling Holder before the pertinent sale or sales by the selling Holder.

(b) To the extent permitted by law, each selling Holder will severally and not jointly indemnify and hold harmless the Company, each of its directors, each of its officers who have signed a Registration Statement, each person, if any, who controls the Company within the meaning of the Securities Act, against any losses, claims, damages or liabilities to which the Company or any such director, officer, controlling person, may become subject to, under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any untrue or alleged untrue statement of any material fact contained in a Registration Statement or any preliminary prospectus or final prospectus, relating thereto or in any amendments or supplements to a Registration Statement or any such preliminary prospectus or final prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent and only to the extent that such untrue statement or alleged untrue statement or omission or alleged omission (i) was made in a Registration Statement, in any preliminary prospectus or final prospectus relating thereto or in any amendments or supplements to a Registration Statement or any such preliminary prospectus or final prospectus, in reliance upon and in conformity with written information furnished by the selling Holder expressly for use in connection with a Registration Statement, or any preliminary prospectus or final prospectus or (ii) at any time when the Company has advised the Holder in writing that the Company does not meet the conditions for use of Rule 172 and as a result that the Holder is required to deliver a current prospectus in connection with any disposition of Registrable Securities, was corrected in any subsequent amendment or supplement to such prospectus that was delivered to the selling Holder before the pertinent sale or sales by the selling Holder; and such selling Holder will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, or other selling Holder in connection with investigating or defending any such loss, claim, damage, liability or action; provided , however , that the liability of each selling Holder hereunder shall be limited to the net proceeds received by such selling Holder from the sale of Registrable Securities giving rise to such liability, and provided further , that the indemnity agreement contained in this Section 10(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of those selling Holder(s) against which the request for indemnity is being made (which consent shall not be unreasonably withheld).

(c) Promptly after receipt by an indemnified party under this Section 10 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 10 , notify the indemnifying party in writing of the commencement thereof and the indemnifying party shall have the right to participate in and, to the extent the indemnifying party desires, jointly with any other indemnifying party similarly noticed, to assume at its expense the defense thereof with counsel satisfactory to the indemnifying party or indemnifying parties, but the omission so to notify the indemnifying party will not relieve it from any liability which it may have to any indemnified party for contribution or otherwise under the indemnity agreement contained in this Section 10 (except to the extent that such omission materially and adversely affects the indemnifying person's ability to defend such action). In the event that the indemnifying party assumes any such defense, the indemnified party may participate in such defense with its own counsel and at its own expense, provided , however , if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded, based on an opinion of counsel reasonably satisfactory to the indemnifying party, that there may be a conflict of interest between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of its election to assume the defense of such action and approval by the indemnified party of counsel, the indemnifying party will not be liable to such indemnified party under this Section 10 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless the indemnified party shall have employed such counsel in connection with the assumption of legal defenses in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the expenses of more than one separate counsel and one local counsel, reasonably satisfactory to such indemnifying party, representing all of the indemnified parties who are parties to such action in which case the reasonable fees and expenses of counsel shall be at the expense of the indemnifying party.

(d) Notwithstanding anything to the contrary herein, the indemnifying party shall not be entitled to settle any claim, suit or proceeding unless in connection with such settlement the indemnified party receives an unconditional release with respect to the subject matter of such claim, suit or proceeding and such settlement does not contain any admission of fault by the indemnified party.

(e) If the indemnification provided for in this Section 10 is unavailable to or insufficient to hold harmless an indemnified party under subsection (a) or (b) above in respect of any losses, claims, damages or liabilities (or actions or proceedings in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative fault of the Company on the one hand and the Holders on the other in connection with the statements or omissions or other matters which resulted in such losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative fault shall be determined by reference to, among other things, in the case of an untrue statement, whether the untrue statement relates to information supplied by the Company on the one hand or a Holder on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such untrue statement. The Company and the Holders agree that it would not be just and equitable if contribution pursuant to this subsection (e) were determined by pro rata allocation (even if the Holders were treated as one entity for such purpose) or by any other method of allocation which does not take into account the equitable considerations referred to above in this subsection (e). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (e) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Holders' obligations in this subsection to contribute are several in proportion to their sales of Registrable Securities to which such loss relates and not joint. In no event shall the contribution obligation of a Holder be greater in amount than the dollar amount of the net proceeds (net of all expenses paid by such Holder in connection with any claim relating to this Section 10 and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission) received by it upon the sale of the Registrable Securities giving rise to such contribution obligation.

(f) The parties to this Agreement hereby acknowledge that they are sophisticated business persons who were represented by counsel during the negotiations regarding the provisions hereof including, without limitation, the provisions of this Section 10 , and are fully informed regarding said provisions. They further acknowledge that the provisions of this Section 10 fairly allocate the risks in light of the ability of the parties to investigate the Company and its business in order to assure that adequate disclosure is made in a Registration Statement as required by the Securities Act and the Exchange Act.

11. REPORTS UNDER THE EXCHANGE ACT . With a view to making available to the Holders the benefits of Rule 144 and any other rule or regulation of the SEC that may at any time permit the Holders to sell the Registrable Securities to the public without registration, the Company agrees: (i) to make and keep public information available as those terms are understood in Rule 144, (ii) to file with the SEC in a timely manner all reports and other documents required to be filed by an issuer of securities registered under the Securities Act or the Exchange Act pursuant to Rule 144, (iii) as long as any Holder owns any Registrable Securities, to furnish in writing upon such Holder's request a written statement by the Company that it has complied with the reporting requirements of Rule 144 and of the Securities Act and the Exchange Act, and to furnish to such Holder a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed by the Company as may be reasonably requested in availing such Holder of any rule or regulation of the SEC permitting the selling of any such Registrable Securities without registration and (iv) undertake any additional actions reasonably necessary to maintain the availability of the use of Rule 144.

12. SUSPENSION . Notwithstanding anything in this Agreement to the contrary, in the event (i) of any non-voluntary demand on the Company by the SEC or any other federal or state governmental authority during the period of effectiveness of a Registration Statement for amendments or supplements to a Registration Statement or related prospectus or for additional information; (ii) of the issuance by the SEC or any other federal or state governmental authority of any stop order suspending the effectiveness of a Registration Statement or the initiation of any proceedings for that purpose; (iii) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction or the initiation of any proceeding for such purpose; or (iv) of any event or circumstance which requires to comply with applicable law the making of any changes in a Registration Statement or related prospectus, or any document incorporated or deemed to be incorporated therein by reference, so that, in the case of a Registration Statement, it will not contain any untrue statement of a material fact or any omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and that in the case of the prospectus, it will not contain any untrue statement of a material fact or any omission to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, then the Company shall furnish to the selling Holders a certificate signed by the President or Chief Executive Officer of the Company setting forth in detail the facts relating to one or more of the above described circumstances, and the right of the selling Holders to use a Registration Statement (and the prospectus relating thereto) shall be suspended for a period (the " **Suspension Period** ") of not more than ten (10) days after delivery by the Company of the certificate referred to above in this Section 12 . During the Suspension Period, none of the Holders shall offer or sell any Registrable Securities pursuant to or in reliance upon a Registration Statement (or the prospectus relating thereto). The Company shall use its best efforts to terminate any Suspension Period as promptly as practicable.

13. TRANSFER OF REGISTRATION RIGHTS . A Holder shall have the right and may transfer or assign, at any time and from time to time, in whole or in part, to one or more Persons its rights hereunder in connection with the transfer of the Registrable Securities by such Holder to such person, provided that (a) such Holder complies with all laws applicable thereto, (b) the Company is furnished with written notice of the name and address of such transferee or assignee and the Registrable Securities to which such registration rights are being transferred, (c) at or before the time the Company received the written notice contemplated by clause (b) of this sentence the transferee or assignee agrees in writing (i) that it is an "accredited investor" as that term is defined in Rule 501 of Regulation D, (ii) to be bound by, all of the terms and conditions of, this Agreement by duly executing and delivering to the Company an Instrument of Adherence in the form attached as Exhibit C hereto and (iii) agree to deliver the FINRA Lock-Up if so requested by FINRA.

14. ENTIRE AGREEMENT . This Agreement, the Warrants, the Placement Agency Agreement, the Subscription Agreement and other documents relating to the Offering (and all exhibits and supplements to such documents) constitute and contain the entire agreement and understanding of the parties with respect to the subject matter hereof, and supersede any and all prior negotiations, correspondence, agreements or understandings with respect to the subject matter hereof.

15. MISCELLANEOUS .

(a) This Agreement may not be amended, modified or terminated, and no rights or provisions may be waived, except with the written consent of the Company and the holders of a majority of the Registrable Securities issued and outstanding or issuable upon exercise of the Warrants; provided , that , no consent shall be required in order to add additional Investors as parties hereto in accordance with the Offering.

(b) This Agreement shall be governed by and construed and enforced solely and exclusively in accordance with the internal laws of the State of New York and without regard to any conflicts of laws principles thereof, and shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, permitted transferees, successors or assigns. This Agreement shall also be binding upon and inure to the benefit of any transferee of any of the Registrable Securities.

(c) Each of the parties hereto irrevocably and expressly submits to the exclusive and sole jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. **EACH OF THE PARTIES HERETO WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.**

(d) Any notices, reports or other correspondence (hereinafter collectively referred to as "correspondence") required or permitted to be given hereunder shall be in writing and shall be sent by postage prepaid first class mail, courier or telecopy or delivered by hand to the party to whom such correspondence is required or permitted to be given hereunder, and shall be deemed sufficient upon receipt when delivered personally or by courier, overnight delivery service or confirmed facsimile, or three (3) business days after being deposited in the regular mail as certified or registered mail (airmail if sent internationally) with postage prepaid, if such notice is addressed to the party to be notified at such party's address or facsimile number as set forth below:

(i) All correspondence to the Company shall be addressed as follows:

Manhattan Pharmaceuticals, Inc.
48 Wall Street, Suite 1100
New York, New York 10005
Attention: Michael McGuinness
Chief Operating and Financial Officer
Facsimile: (212) 582-3957

with a copy to:

Lowenstein Sandler PC
65 Livingston Avenue

Roseland, New Jersey 07068
Attention: Anthony Pergola, Esq.
Facsimile: (973) 597-2300

(ii) All correspondence to any Investor shall be sent to such Investor at the address set forth in the Investor Counterpart Signature Page to the Subscription Agreement.

(iii) Any entity may change the address to which correspondence to it is to be addressed by written notification as provided for herein.

(e) The parties acknowledge and agree that in the event of any breach of this Agreement, remedies at law may be inadequate, and each of the parties hereto shall be entitled to seek specific performance of the obligations of the other parties hereto and such appropriate injunctive relief as may be granted by a court of competent jurisdiction.

(f) Should any part or provision of this Agreement be held unenforceable or in conflict with the applicable laws or regulations of any jurisdiction, the invalid or unenforceable part or provisions shall be replaced with a provision which accomplishes, to the extent possible, the original business purpose of such part or provision in a valid and enforceable manner, and the remainder of this Agreement shall remain binding upon the parties hereto.

(g) This Agreement may be executed in a number of counterparts, any of which together shall for all purposes constitute one Agreement, binding on all the parties hereto notwithstanding that all such parties have not signed the same counterpart.

[Signature Page to Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Registration Rights Agreement as of the date and year first above written.

MANHATTAN PHARMACEUTICALS, INC.

By: /s/ Michael McGuinness
Michael McGuinness
Chief Financial Officer

NATIONAL SECURITIES CORPORATION

By: /s/ Jonathan C. Rich
Jonathan C. Rich
Executive V.P. &
Head of Investment Banking

THE INVESTOR'S SIGNATURE TO THE APPLICALBE SUBSCRIPTION AGREEMENT DATED OF EVEN DATE HEREWITH SHALL CONSTITUTE THE INVESTOR'S SIGNATURE TO THIS REGISTRATION RIGHTS AGREEMENT.

Signature Page to Registration Rights Agreement

EXHIBIT A

INVESTOR LIST

EXHIBIT B

Selling Stockholder Questionnaire

EXHIBIT C

Instrument of Adherence

Reference is hereby made to that certain Registration Rights Agreement, dated as of March 2, 2010, among Manhattan Pharmaceuticals, Inc., a Delaware corporation (the " **Company** "), the Investors and the Investor Permitted Transferees, as amended and in effect from time to time (the " **Registration Rights Agreement** "). Capitalized terms used herein without definition shall have the respective meanings ascribed thereto in the Registration Rights Agreement.

The undersigned, in order to become the owner or holder of [_____] shares of common stock, par value $0.001 per share of the Company (the " **Common Stock** "), or a Warrant or Warrants to purchase [_____] Warrant Shares, hereby agrees that, from and after the date hereof, the undersigned has become a party to the Registration Rights Agreement in the capacity of an Investor Permitted Transferee, and is entitled to all of the benefits under, and is subject to all of the obligations, restrictions and limitations set forth in, the Registration Rights Agreement that are applicable to Investor Permitted Transferees. This Instrument of Adherence shall take effect and shall become a part of the Registration Rights Agreement immediately upon execution.

Executed as of the date set forth below under the laws of the State of New York.

Signature: _____

Name:
Title:

Accepted:
[_____]

By: _____
Name:
Title:

Date:_____, 20__

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our report on our audits of the financial statements of Manhattan Pharmaceuticals, Inc. as of December 31, 2009 and 2008 and for the years then ended and for the period from August 6, 2001 (date of inception) to December 31, 2009, which contains explanatory paragraphs relating to the adoption of the new accounting standard for whether an equity linked financial instrument is indexed to its own stock and the Company's ability to continue as a going concern, included in this Annual Report on Form 10-K for the year ended December 31, 2009, is dated March 31, 2010. We consent to the incorporation by reference of our report in the following registration statements previously filed by the Company with the Securities and Exchange Commission pursuant to the Securities Act of 1933: the registration statements on Forms S-1 with SEC File Nos. 333-150580 and 333-157470 and the registration statements on Forms S-8 with SEC file Nos. 333-48531, 333-15807, 333-112888 and 333-112889

/s/J.H. Cohn LLP

Roseland, New Jersey
March 31, 2010

EXHIBIT 31.1

CERTIFICATION

I, Michael G. McGuinness, certify that:

1. I have reviewed this Annual Report on Form 10-K of Manhattan Pharmaceuticals, Inc. (the "Registrant");

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(s) 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 most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) 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(s) 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.

Date: March 31, 2010

S: / Michael McGuinness
Michael G. McGuinness
Principal Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, Michael G. McGuinness, certify that:

1. I have reviewed this Annual Report on Form 10-K of Manhattan Pharmaceuticals, Inc. (the "Registrant");

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(s) 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 most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) 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(s) 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.

Date: March 31, 2010

S: / Michael McGuinness
Michael G. McGuinness
Chief Operating and Financial Officer

Exhibit 32.1

CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officers of Manhattan Pharmaceuticals, Inc. hereby certifies that, to the best of their knowledge:

(a) the Annual Report on Form 10-K of Manhattan Pharmaceuticals, Inc. for the year ended December 31, 2009 the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(b) information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Manhattan Pharmaceuticals, Inc.

Dated: March 31, 2010

S:/ Michael McGuinness
Michael G. McGuinness
Principal Executive Officer,
Chief Operating and Financial Officer