

MANHATTAN PHARMACEUTICALS INC
Form S-3/A
May 16, 2007

As filed with the Securities and Exchange Commission on May 16, 2007

Registration No. 333-142788

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

PRE-EFFECTIVE AMENDMENT NO. 1 TO
FORM S-3/A
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Manhattan Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other
jurisdiction
of incorporation or
organization)

36-3898269
(I.R.S. Employer
Identification Number)

810 Seventh Avenue, 4th Floor
New York, NY 10019
Telephone: (212) 582-3950
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Mr. Michael G. McGuinness
Chief Financial Officer
Manhattan Pharmaceuticals, Inc.
810 Seventh Avenue, 4th Floor
New York, NY 10019
Telephone: (212) 582-3950
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Christopher J. Melsha, Esq.
Maslon Edelman Borman & Brand, LLP
90 South 7th Street, Suite 3300
Minneapolis, Minnesota 55402
Telephone: (612) 672-8200

Approximate date of commencement of proposed sale to the public:

From time to time after the effective date of this Registration Statement, as determined by the stockholders.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. "

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ý

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. "

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. "

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act, as amended, or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The stockholders identified in this prospectus may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to completion, dated May 16, 2007

PROSPECTUS

14,259,674 Shares of Common Stock

Manhattan Pharmaceuticals, Inc.

This prospectus relates to shares of our common stock (including shares of common stock issuable upon exercise of outstanding warrants) that will be sold by the selling stockholders named in this prospectus. The selling stockholders acquired these shares from us in a private placement completed on March 30, 2007. We will not receive any of the proceeds from the sale of those shares.

Our common stock is traded on the American Stock Exchange under the symbol "MHA." On _____, 2007, the last reported sales price for our common stock on the American Stock Exchange was \$____ per share.

See "Risk Factors" beginning on page 8 of this Prospectus for factors you should consider before buying shares of our common stock.

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

The date of this Prospectus is _____, 2007.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, 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, continuing, ongoing, expect, management believes, we believe, we 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. Any forward-looking statements are qualified in their entirety by reference to the factors discussed in this prospectus or incorporated by reference.

Because the factors discussed in this prospectus or incorporated by reference could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any such forward-looking statements. These statements are 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: the development of our drug candidates; the regulatory approval of our drug 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 product candidates; the effect of potential strategic transactions on our business; our ability to obtain adequate financing; and the volatility of our stock price. These and other risks are detailed in this prospectus under the discussion entitled "Risk Factors," as well as in our reports filed from time to time under the Securities Act and/or the Exchange Act. You are encouraged to read these filings as they are made.

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.

PROSPECTUS SUMMARY

The Securities and Exchange Commission, or SEC, allows us to “incorporate by reference” certain information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will update automatically, supplement and/or supersede this information. Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other document which also is or is deemed to be incorporated by reference in this prospectus modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should read the detailed information regarding our company, our common stock and our financial statements and notes to those statements appearing elsewhere in this prospectus or incorporated herein by reference. References in this prospectus to “our company,” “we,” “our,” and “us” refer to Manhattan Pharmaceuticals, Inc.

Manhattan Pharmaceuticals, Inc.

We are a clinical-stage biopharmaceutical company focused on developing and commercializing innovative pharmaceutical therapies 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 addition to the development of our current products, we are actively working to expand our product candidate pipeline.

Our Product Candidates

We currently have five product candidates in development:

- **Oral Oleoyl-estrone.** We hold an exclusive, worldwide license to develop and commercialize oral Oleoyl-estrone, or OE, pursuant to a 2002 license agreement with Oleoyl-estrone Developments, SL, or OED, a Spanish corporation. We are currently conducting two Phase 2a clinical studies of Oleoyl-estrone, one in common obese subjects and one in morbidly obese subjects.

Extensive preclinical studies of OE have shown evidence of weight loss, sustained weight loss after dosing stops, and reduced food intake. These studies have also shown evidence of beneficial changes in blood glucose and cholesterol levels. This work is supported by dozens of peer-reviewed journal publications over the past ten years. Results of the Phase 1 clinical studies with OE, reported in October 2005, showed OE was clinically well tolerated at all dose levels. The Phase 1 data in humans points to similar beneficial effects of OE as shown in preclinical studies including weight loss, sustained weight loss and beneficial changes in blood glucose and cholesterol. Clinical laboratory findings included dose-dependent elevations in estrone and estradiol levels, as well as reductions in testosterone levels; all had returned to baseline by the first follow-up visit, 8 days after dosing stopped.

In March 2006, we commenced a Phase 2a clinical study evaluating oral Oleoyl-estrone in obese adult subjects with a body mass index, or BMI, of 27-38.9. This randomized, double-blind, placebo-controlled, parallel group study is designed to evaluate the safety and preliminary efficacy of oral Oleoyl-estrone in 100 common obese male and female subjects. Enrollment in this study was completed in February 2007. We expect the last patient to complete the study in mid-June 2007, and we plan to complete data analysis in mid-July 2007.

In the fourth quarter of 2006, we also commenced a Phase 2a clinical study evaluating oral Oleoyl-estrone in 24 morbidly obese male subjects (BMI 40-55). F. Xavier Pi-Sunyer, MD, of St. Luke's-Roosevelt Hospital Center,

University Hospital of Columbia University College of Physicians and Surgeons is serving as Principal Investigator. The study is expected to conclude mid-year 2007.

- **Topical PTH (1-34).** We are developing PTH (1-34) as a topical treatment for psoriasis. In 2003, researchers, led by Michael Holick, PhD, MD, Professor of Medicine, Physiology, and Biophysics at Boston University Medical Center, reported positive results from a US Phase 1 and 2 clinical trial evaluating the safety and efficacy of PTH (1-34) as a topical treatment for psoriasis. This double-blind, controlled trial in 15 patients compared PTH (1-34) formulated in the Novasome® Technology versus the Novasome® vehicle alone. Following 8 weeks of treatment, the topical application of PTH (1-34) resulted in complete clearing of the treated lesion in 60% of patients and partial clearing in 85% of patients. Additionally, there was a statistically significant improvement in the global severity score. Ten patients continued receiving PTH (1-34) in an open label extension study in which the Psoriasis Area and Severity Index (PASI) was measured; PASI improvement across all 10 patients achieved statistically significant improvement compared to baseline. This study showed PTH (1-34) to be well tolerated and efficacious for the treatment of plaque psoriasis with no patients experiencing any clinically significant adverse events.

Due to the high response rate seen in patients in the initial trial with PTH (1-34), we believe that it may have an important clinical advantage over current topical psoriasis treatments. A physician IND Phase 2a trial involving PTH (1-34) was initiated in December 2005 under the auspices of Boston University. In April 2006, we reported a delay in this Phase 2a clinical study of topical PTH (1-34) due to a formulation issue. We believe we have identified and resolved this issue. An improved formulation has been produced and several patent applications are being prepared. We expect to initiate clinical activities during 2007.

- **Altoderm.** We recently entered into a license agreement with Thornton & Ross LTD, or T&R, pursuant to which we acquired exclusive North American rights to a dermatology product candidate called Altoderm. Altoderm is a novel, proprietary formulation of topical cromolyn sodium and is designed to enhance the absorption of cromolyn sodium in order to treat atopic dermatitis, or “eczema.” This product candidate is currently being tested in a Phase 3 clinical trial in the United Kingdom. In a previously completed randomized, double-blind, placebo-controlled, parallel-group, Phase 3 clinical study in the United Kingdom the compound was administered for 12 weeks to 114 child subjects with moderately severe atopic dermatitis. In the study results, published in the British Journal of Dermatology in February 2005, Altoderm demonstrated a statistically significant reduction in symptoms. During the study, subjects were permitted to continue with their existing treatment, in most cases this consisted of emollients and topical steroids. A positive secondary outcome of the study was a reduction in the use of topical steroids for the Altoderm-treated subjects. See “—Recent Developments - Altoderm License Agreement.”
- **Altolyn.** In addition to the Altoderm license agreement, we entered into a separate license agreement with T&R pursuant to which we acquired exclusive North American rights to develop and commercialize Altolyn. Altolyn is a proprietary, site specific, tablet formulation of oral cromolyn sodium for the treatment of mastocytosis. This novel formulation is designed to provide optimal availability by preferentially releasing the drug in the upper part of the small intestine, the purported site of action. In addition to mastocytosis early clinical experience in the UK suggests promising activity in patients with various allergic disorders, including inflammatory bowel conditions. Oral cromolyn sodium is the active ingredient in Gastrocrom® an oral liquid solution that is currently FDA approved for the treatment of mastocytosis. See “—Recent Developments - Altolyn License Agreement.”
- **Propofol Lingual Spray.** We are developing propofol lingual spray, which we in-licensed from NovaDel Pharma, Inc. for light to medium sedation, on a Section 505(b)(2) bioequivalence regulatory pathway toward approval by the U.S. Food and Drug Administration (FDA). In January 2005, the FDA accepted our IND for propofol lingual spray, allowing us to commence clinical trials. The FDA has indicated to us in discussions that we may proceed to a pivotal Phase III trial of propofol lingual spray following completion of Phase I trials. We continue to pursue a revised product presentation to meet the market opportunity and are working with several external experts to achieve these goals.

None of our product candidates have been approved by the FDA or any other regulatory body. Further, we have not received any commercial revenues to date and, until we receive the necessary regulatory approvals, we will not have

any commercial revenues.

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Corporate Information

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 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.

Our executive offices are located at 810 Seventh Avenue, 4th floor, New York, NY 10019 USA. Our telephone number is (212) 582-3950 and our internet address is www.manhattanpharma.com.

Altoderm™ and Altolyn™ are the trademarks for our topical cromolyn sodium and for our oral cromolyn sodium product candidates, both of which trademarks we license from T&R, from which we have licensed all of our rights to Altoderm and Altolyn. T&R has applied for registration for the Altoderm and Altolyn trademarks. All other trademarks and tradenames mentioned in this prospectus are the property of their respective owners.

Recent Developments

Private Placement

On March 30, 2007, we issued and sold in a private placement transaction an aggregate of 10,185,502 shares of our common stock. 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 our common stock on March 29, 2007. In addition to the shares of common stock, we also issued to the investors 5-year warrants to purchase an aggregate of 3,564,897 shares of our 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. Accordingly, we received net proceeds of \$7.9 million from the sale of these shares and warrants. We engaged Paramount BioCapital, Inc., as our placement agent in connection with the private placement. In consideration for its services, we paid aggregate cash commissions to the placement agent 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 shares being offered by this prospectus are comprised of the 10,185,502 common shares and the 3,564,897 shares issuable upon exercise of the warrants issued to investors in the offering, as well as 509,275 shares issuable upon exercise of the placement agent warrants.

Altoderm License Agreement

On April 3, 2007, we entered into an exclusive license agreement for “Altoderm” with Thornton & Ross, LTD, or T&R. We acquired an exclusive license in North America for certain patent rights and other intellectual property related to Altoderm, a proprietary topical formulation of cromolyn sodium used to treat atopic dermatitis, or “eczema”. In consideration for the license, we issued T&R 125,000 shares of our common stock upon execution of the agreement and made a cash payment to T&R of \$475,000. Under the agreement, we will make certain milestone payments of cash and common stock to T&R of \$5,765,000 and 857,000 shares of our common stock upon the achievement of various clinical and regulatory milestones. We also agreed to pay royalties on net sales of products using the licensed

patent rights of 10% to 20%, depending on the level of net annual sales, and subject to an annual minimum royalty payment of \$1,000,000 in each year following the first commercial sale of Altoderm. Also, we may sublicense the patent rights, and proceeds resulting from such sublicenses will be shared with T&R.

Under the agreement with T&R, we are responsible for maintaining the licensed patent rights at our own expense. T&R must notify us of any improvements to the licensed product and assist us in filing and maintaining such improvements with the applicable governmental bodies. We have the first right to initiate, at our sole expense, legal proceedings against any infringers or potential infringers of the licensed patent rights. T&R may, in certain circumstances and at its own expense, initiate legal proceedings against any infringers or potential infringers of the licensed patent rights. The parties may elect to share equally in the expenses incurred during, and proceeds received from, enforcement actions brought by the other party.

The license agreement, unless earlier terminated, will expire upon the expiration of the last to expire patent right covering a licensed product in North America, which is currently May 2019. T&R has the right, following 90 days' notice and opportunity to cure, to terminate the license agreement sooner in the event we commit a breach of the agreement. We may terminate, in our sole discretion, the license agreement at any time, upon 30 days' notice. Additionally, T&R may terminate the agreement if we declare bankruptcy or are declared bankrupt, if we are placed in the hands of a receiver or trustee for the benefit of creditors, or if we, or our sublicensee, fails to take affirmative actions towards the development of the licensed product. Upon termination of the license agreement, all rights to the licensed patents shall revert to T&R; however, we have the right to continue to sell all remaining licensed products in our inventory.

Altolyn License Agreement

On April 3, 2007, we entered into an exclusive license agreement for "Altolyn" with T&R. We acquired an exclusive license in North America for certain patent rights and other intellectual property related to Altolyn, a proprietary oral tablet formulation of cromolyn sodium for the treatment of mastocytosis, food allergies, and irritable bowel syndrome. In consideration for the license, we made a cash payment to T&R of \$475,000. Under the agreement, we will have to make cash milestone payments to T&R of \$5,765,000 upon the achievement of various clinical and regulatory milestones. We also agreed to pay royalties on net sales of products using the licensed patent rights of 10% to 20%, depending on the level of net annual sales, and subject to an annual minimum royalty payment of \$1,000,000 in each year following the first commercial sale of Altolyn. Also, we may sublicense the patent rights, and proceeds resulting from such sublicenses will be shared with T&R.

Under the agreement with T&R, we are responsible for maintaining the licensed patent rights at our own expense. T&R must notify us of any improvements to the licensed product and assist us in filing and maintaining such improvements with the applicable governmental bodies. We have the first right to initiate, at our sole expense, legal proceedings against any infringers or potential infringers of the licensed patent rights. T&R may, in certain circumstances and at its own expense, initiate legal proceedings against any infringers or potential infringers of the licensed patent rights. The parties may elect to share equally in the expenses incurred during, and proceeds received from, enforcement actions brought by the other party.

The license agreement, unless earlier terminated, will expire upon the expiration of the last to expire patent right covering a licensed product in North America, which is currently November 2019. T&R has the right, following 90 days' notice and opportunity to cure, to terminate the license agreement sooner in the event we commit a breach of the agreement. We may terminate, in our sole discretion, the license agreement at any time, upon 30 days' notice. Additionally, T&R may terminate the agreement if we declare bankruptcy or are declared bankrupt, if we are placed in the hands of a receiver or trustee for the benefit of creditors, or if we, or our sublicensee, fails to take affirmative actions towards the development of the licensed product. Upon termination of the license agreement, all rights to the licensed patents shall revert to T&R; however, we have the right to continue to sell all remaining licensed products in our inventory.

The Offering

The selling stockholders identified on pages 17-20 of this prospectus are offering on a resale basis an aggregate of 14,259,674 shares of our common stock, of which 4,074,172 shares are issuable upon exercise of outstanding warrants.

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|---|----------------------|
| Shares of common stock offered | 10,185,502 shares |
| Shares of common stock issuable upon exercise of warrants offered | 4,074,172 shares |
| Common stock outstanding before this offering (1) | 70,470,419 shares |
| Common stock outstanding following this offering (2) | 74,544,591 shares |
| Common stock American Stock Exchange Symbol | MHA |

(1) Based on the number of shares outstanding as of May 2, 2007, not including approximately 18,734,166 shares issuable upon exercise of various warrants and options to purchase common stock as well as restricted stock grants.

(2) Assumes the issuance of all shares offered hereby that are issuable upon the exercise of warrants.

RISK FACTORS

Investment in our shares involves a degree of risk. You should consider the following discussion of risks as well as other information in this prospectus and the incorporated documents before purchasing any shares. The risks described below are not the only risks we face. Additional risks that we do not yet know of or that we currently think are immaterial may also impair our business operations. If any of the events or circumstances described in the following risks actually occurs, our business, financial condition, or results of operations could be materially adversely affected. In such case, the trading price of our common stock could decline, and you may lose all or part of your investment.

Risks Related to Our Business

We currently have no product revenues and will need to raise 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 drug development programs.

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 our product candidates. We have already spent substantial funds developing our potential products and business and we expect to continue to have negative cash flow from our operations for at least the next several years. As of March 31, 2007, we had \$8,689,792 of cash and cash equivalents. In connection with our March 2007 private placement of common stock and warrants, we received net proceeds of approximately \$7.9 million. Even though we were successful in raising funds in March 2007 we will still have to raise substantial additional funds to complete the development of our drug 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.

Additional financing may not be available on acceptable terms, if 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.

We are not currently profitable and may never become profitable.

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, 2006 we incurred a net loss of \$9,695,123. For the quarter ended March 31, 2007 and for the period from August 6, 2001 (inception) through March 31, 2007, we incurred net losses of \$2,564,257, and \$44,351,431, 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 pre-clinical development and clinical trials for our product candidates;

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- seek regulatory approvals for our product candidates;
- in-license new products;
- 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.

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

Since inception our operations have been limited to organizing and staffing, and acquiring, developing and securing our proprietary technology and undertaking pre-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 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 Investigational New Drug Application, or an IND, which will set forth our plans for clinical testing of our product candidates. In January 2005, the FDA accepted INDs for both our Oleoyl-estrone and Propofol LS product candidates. We have not yet filed a corporate IND for PTH(1-34), Altoderm or Altolyn. In May and July 2005, we completed Phase 1a and Phase 1b trials in Basel, Switzerland to evaluate the safety and tolerability as well as preliminary signs of efficacy of defined doses of orally administered Oleoyl-estrone in obese adults, in accordance with relevant regulatory guidelines. Because Propofol has already been approved by the FDA for intravenous use, the FDA has informed us that we may utilize a rapid development strategy that will enable us to go directly to a Pivotal Phase 3 trial following completion of Phase 1 trials. We are unable to estimate the size and timing of all the Phase 2 and Phase 3 programs for Oleoyl-estrone at this time and, accordingly, cannot estimate the time when development of that product candidate will be completed.

When the clinical testing for our product candidates is complete, we will submit to the FDA a New Drug Application, or 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 pre-clinical studies, as well as human tests, which are referred to as clinical trials. Satisfaction of the FDA's regulatory requirements typically takes many years, 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 pre-clinical 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 one or more of our 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 pre-clinical testing and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the results of later clinical trials will replicate the results of prior clinical trials and pre-clinical testing. The clinical trial process may fail to demonstrate that our 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 drugs.

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

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

We generally collaborate with third-party researchers to carry out the development plans for 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 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. We currently have no contract for the manufacture of our product candidate. 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 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.

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.

Each of these risks could delay our clinical trials, the approvals, if any, of our product candidates by the FDA or the commercialization of our product candidates or result in higher costs or deprive us of potential product revenues.

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 its 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 Oleoyl-estrone and perhaps our other 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 its 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 pre-clinical testing and human clinical trials;
- obtaining FDA and other regulatory approvals of drugs;
- formulating and manufacturing drugs; and
- launching, marketing and selling drugs.

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

Companies that currently sell both generic and proprietary anti-obesity compounds formulations include among others Abbot Laboratories, Inc., Amgen, Inc., and Roche Holdings AG. Alternative technologies are being developed to treat obesity and overweight disease, several of which are in advanced clinical trials. In addition, companies pursuing different but related fields represent substantial competition. Many of these 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.

We currently do not directly own the rights to any patents. We license rights to issued patents relating to our product candidates, summarized as follows:

- Oleoyl-estrone - one U.S. patent that expires in 2016 and one European patent that expire in 2016.
 - PTH (1-34) - three U.S. patents that expire from 2007 to 2013.
 - Altoderm - one U.S. patent that expires in 2019.
 - Altolyn - one U.S. patent that expires in 2019.
- Propofol Lingual Spray - three U.S. patents that expire from 2016 to 2017 and one European patent that expires in 2017.

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. For example, despite covenants in our license agreement with Oleoylestrone Developments, from which we license Oleoyl-estrone, that generally prohibit disclosing information relating to our licensed technology, the license agreement allows for Oleoylestrone Developments to publish data and other information relating to our licensed technology. 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.

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.

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 pre-clinical 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.

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 32 percent of our outstanding voting stock and, including shares underlying outstanding options and warrants, this group beneficially owns approximately 35 percent of our common stock. Accordingly, these persons and their respective affiliates will 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 Securities

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 \$0.62 (in the third and fourth quarters of 2006) to a high of \$2.10 (in the first quarter of 2005). 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:

- 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 pre-clinical 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 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.

We have received notice from the American Stock Exchange that we fail to comply with certain of its continued listing standards, which may result in the delisting of our common stock from the exchange.

Our common stock is currently listed for trading on the American Stock Exchange, or AMEX, and the continued listing of our common stock on the AMEX is subject to our compliance with a number of listing standards. On January 8, 2007, we received notice from the AMEX informing us that, as of September 30, 2006, we are not in compliance with an AMEX listing standard that requires us to have stockholders' equity of at least \$4,000,000, if we have had net losses in three of our four most recent fiscal years, as well as a similar listing standard that requires that we have stockholders' equity of at least \$6,000,000 if we have net losses in our five most recent fiscal years. In order to maintain our AMEX listing, we were required to submit a plan to AMEX advising the exchange of the actions we

have taken, or will take, which would bring us into compliance with all the continued listing standards by April 16, 2008. We submitted such a plan in February 2007. AMEX accepted our plan in March 2007, allowing us to continue our listing during the period ending April 16, 2008, during which time we will be subject to periodic review to determine if we are making progress consistent with the plan. If we are not in compliance with the continued listing standards at the end of the plan period, or if we do not make progress consistent with the plan during the plan period, AMEX staff may initiate delisting proceedings. There can be no assurance that we will be able to make progress consistent with such plan.

If we fail to make sufficient progress under our plan, AMEX may initiate delisting proceedings. If our common stock is delisted from AMEX, trading in our common stock would likely be conducted on the OTC Bulletin Board, a regulated quotation service. If our common stock is delisted from the AMEX, the liquidity of our common stock may be reduced, 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. This may result in lower prices for our common stock than might otherwise be obtained and could also result in a larger spread between the bid and asked prices for our common stock.

We have never paid dividends.

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.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the resale shares by the stockholders. All proceeds from the sale of the resale shares will be solely for the accounts of the stockholders.

SELLING STOCKHOLDERS

We are registering for resale the shares covered by this prospectus on behalf of the stockholders identified below. The stockholders acquired these shares from us in a private placement completed on March 30, 2007. We are registering the shares to permit the stockholders and their pledgees, donees, transferees and other successors-in-interest that receive their shares from a stockholder as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus to resell the shares when and as they deem appropriate. The following table sets forth:

- the name of the stockholders;
- the number of shares of our common stock that the stockholders beneficially owned prior to the offering for resale of the shares under this prospectus;
- the number of all outstanding shares of our common stock that may be offered for resale for the account of the stockholders under this prospectus;
- the number of shares of our common stock issued upon exercise of outstanding warrants that may be offered for resale for the account of the stockholders under this prospectus; and
- the percent of shares of our common stock to be beneficially owned by the stockholders after the offering of the resale shares (assuming all of the offered resale shares are sold by the stockholders).

The number of shares in the columns "Number of Shares Being Offered" and "Number of Shares Being Offered Upon Exercise of Warrants" represent all of the shares of common stock that each stockholder may offer under this prospectus. We do not know how long the stockholders will hold the shares before selling them or how many shares they will sell and we currently have no agreements, arrangements or understandings with any of the stockholders regarding the sale of any of the resale shares. The shares offered by this prospectus may be offered from time to time by the stockholders listed below.

This table is prepared solely based on information supplied to us by the listed stockholders, any Schedules 13D or 13G and Forms 3 and 4, and other public documents filed with the SEC, and assumes the sale of all of the resale shares. The applicable percentages of beneficial ownership are based on an aggregate of 70,363,077 shares of our common stock issued and outstanding on April 30, 2007, adjusted as may be required by rules promulgated by the SEC.

| | Number of Shares Beneficially Owned Prior to Offering | Number of Outstanding Shares Being Offered | Number of Shares Being Offered Upon Exercise of Warrants | Percentage of Shares Beneficially Owned After Offering |
|---|--|---|---|---|
| Neel B. and Martha N. Ackerman | 409,873 ¹ | 119,047 | 41,666 | * |
| Andrew Albstein | 133,401 ⁵ | 59,523 | 20,833 | * |
| Alpha Capital Anstalt ^a | 241,070 | 178,571 | 62,499 | - |
| David Benadum | 137,382 ² | 59,523 | 20,833 | * |
| Nicole Berg | 387,500 ³ | 250,000 | 87,500 | * |
| Mark Berg IRA Delaware Charter Guarantee & Trust Co., FBO | 387,500 ³ | 250,000 | 87,500 | * |
| R. Jackson Burkhalter | 83,177 | 29,761 | 10,416 | - |
| Frank Calcutta | 426,929 ⁴ | 119,047 | 41,666 | * |
| James E. Cantrell, Jr. | 40,177 | 29,761 | 10,416 | - |
| Trevor Colby, RBC Dain Rauscher Custodian | 160,713 | 119,047 | 41,666 | - |
| Cranshire Capital, LP ^b | 366,473 ⁵ | 238,095 | 83,333 | * |
| Ennio DePianto | 54,000 | 40,000 | 14,000 | - |
| Praful Desai | 126,310 ⁶ | 59,523 | 20,833 | * |
| Domaco Venture Capital Fund ^c | 77,250 | 35,000 | 12,250 | - |
| Gregory J. Dovolos | 197,436 ⁷ | 59,523 | 20,833 | * |
| John O. Dunkin | 167,353 ⁸ | 59,523 | 20,833 | * |
| Isaac R. Dweck | 141,366 ⁷ | 59,523 | 20,833 | * |
| Equity Interest, Inc. ^d | 40,500 | 30,000 | 10,500 | - |
| Far Ventures, LLC ^e | 52,512 | 25,000 | 8,750 | - |
| Robert Frost | 80,356 | 59,523 | 20,833 | - |
| Gemini Master Fund, Ltd. ^f | 321,428 | 238,095 | 83,333 | - |
| Dean Glaser | 37,149 | 17,857 | 6,249 | - |
| Marc Goldman | 401,785 | 297,619 | 104,166 | - |
| Peter Graf | 80,356 | 59,523 | 20,833 | - |
| Jay Greenbaum | 24,106 | 17,857 | 6,249 | - |
| Robert Guercio | 134,410 ⁹ | 59,523 | 20,833 | * |
| Harewood Nominees Ltd. ^g | 208,768 | 34,523 | 12,083 | - |
| Jimmie Harvey | 60,177 | 29,761 | 10,416 | - |
| Ben Heller | 376,929 | 119,047 | 41,666 | * |
| Hendeles Grandchildrens Trust #2 dtd 12/23/93 ^h | 70,177 | 29,761 | 10,416 | - |
| Hendeles Grandchildrens Trust dtd 1/1/89 ^h | 54,106 | 17,857 | 6,249 | - |
| Hendeles Living Trust ^h | 70,177 | 29,761 | 10,416 | - |
| Henderson Global Multi-Strategy Equity Fund ^g | 752,303 | 450,595 | 157,708 | - |

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| | | | | |
|---|----------------------|---------|---------|---|
| Henderson North American Multi-Strategy Equity Fund ^g | 187,840 | 110,119 | 38,541 | - |
| Elliot Herskowitz IRA Rollover | 40,177 ¹⁰ | 29,761 | 10,416 | - |
| Highbridge International, LLC ⁱ | 803,571 | 595,238 | 208,333 | - |
| David Jaroslawicz | 196,749 ⁴ | 119,047 | 41,666 | * |
| Jasmine Trustees Limited Trustee of the Rhombus Private Capital Trust ^j | 160,713 | 119,047 | 41,666 | - |
| Shulamit Rozen Katzman | 160,713 | 119,047 | 41,666 | - |
| The Lord Kenilworth | 40,177 | 29,761 | 10,416 | - |
| Laurence Kessel | 82,785 ¹¹ | 59,523 | 20,833 | * |
| Jay Kestenbaum | 67,203 ² | 29,761 | 10,416 | * |
| Klaus Kretschmer | 642,856 | 476,190 | 166,666 | - |

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| | | | | |
|--|-------------------------|-----------|---------|------|
| Nicholas B. Kronwall Trust | 64,285 | 47,619 | 16,666 | - |
| Lakeside Partners ^k | 333,865 ⁹ | 59,523 | 20,833 | * |
| Pershing LLC as Custodian FBO Ronald M. Lazar IRA | 125,966 | 35,715 | 12,500 | - |
| James J. Leary | 60,177 | 29,761 | 10,416 | - |
| Stephen H. Lebovitz | 80,356 | 59,523 | 20,833 | - |
| Linden Growth Partners Master Fund LP ^l | 366,478 | 238,095 | 83,333 | - |
| Michael G. Lindley | 357,713 | 119,047 | 41,666 | - |
| S. Alan Lisenby | 392,816 ¹² | 119,047 | 41,666 | * |
| Peter MacLeod | 40,177 | 29,761 | 10,416 | - |
| Fred Mancheski | 482,141 | 357,142 | 124,999 | - |
| Mark Mazzer | 80,356 | 59,523 | 20,833 | - |
| MHR Capital Partners (100) LP ^m | 387,736 ¹³ | 123,126 | 43,094 | * |
| MHR Capital Partners Master Account, LP ^m | 3,065,472 ¹⁴ | 1,067,350 | 373,572 | 2.3% |
| Albert Milstein | 123,203 ¹⁵ | 29,761 | 10,416 | * |
| Stephen Muss | 160,713 | 119,047 | 41,666 | - |
| Harry and Susan Newton | 160,713 ¹⁶ | 119,047 | 41,666 | * |
| Thomas & Denise M. Nudo | 80,356 | 59,523 | 20,833 | - |
| Palos Capital Pool, LP ⁿ | 48,213 | 35,714 | 12,499 | - |
| Alan Platner | 80,356 | 59,523 | 20,833 | - |
| Anthony G. Polak | 64,263 | 30,000 | 10,500 | - |
| Anthony G. "S" Polak | 104,763 | 60,000 | 21,000 | - |
| Catharina Polak #2 Trust FBO Catharina Polak | 97,676 | 35,000 | 12,250 | - |
| David and Nancy Pudelsky | 146,382 ¹⁷ | 59,523 | 20,833 | * |
| Louis R. Reif | 330,819 ¹⁸ | 119,047 | 41,666 | * |
| Renov Investments, LLC ^o | 527,575 ¹⁹ | 119,047 | 41,666 | * |
| Ian Richards | 40,177 | 29,761 | 10,416 | - |
| Riverside Contracting, LLC ^p | 201,303 ²⁰ | 55,555 | 19,444 | * |
| RL Capital Partners, LP ^q | 338,385 | 119,048 | 41,666 | - |
| J. Philip Rosen | 40,177 | 29,761 | 10,416 | - |
| Jonathan E. Rothchild | 237,215 | 35,715 | 12,500 | - |
| Philip Rushby | 40,177 | 29,761 | 10,416 | - |
| Philip Schiller | 97,203 ² | 29,761 | 10,416 | * |
| Martin Seratean | 80,356 | 59,523 | 20,833 | - |
| William Silver | 139,883 ⁹ | 29,761 | 10,416 | * |
| Vernon L. Simpson | 60,177 | 29,761 | 10,416 | - |
| Sky Ventures, LLC ^r | 461,432 ¹⁹ | 178,571 | 62,499 | * |
| Lucile Slocum, Stanley Slocum POA | 258,405 ²¹ | 59,523 | 20,833 | * |
| JDR Smith | 40,177 | 29,761 | 10,416 | - |
| South Ferry #2, LP ^s | 401,785 | 297,619 | 104,166 | - |
| Gary & Linda Speet | 50,177 | 29,761 | 10,416 | - |
| Barnaby Spurrier | 40,177 | 29,761 | 10,416 | - |
| Esther Stahler | 341,883 ¹⁹ | 59,523 | 20,833 | * |
| Gary J. Strauss | 226,084 ²² | 59,523 | 20,833 | * |
| Strike Force Investment Ltd c/o Wai Wah Tang ^t | 80,356 | 59,523 | 20,833 | - |
| Paul Stuart-Kregor | 40,177 | 29,761 | 10,416 | - |
| Pershing LLC as Custodian Rollover Account IRA FBO Howard Tanning M.D. | 295,847 ²³ | 119,047 | 41,666 | * |

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| | | | | |
|---|----------------------|------------|-----------|-----|
| A. Starke Taylor, Jr., Carolyn Taylor POA | 214,767 ⁹ | 119,047 | 41,666 | * |
| J. Ranier Twiford | 130,706 | 59,523 | 20,833 | - |
| Hillel Weinberger | 529,428 | 238,095 | 83,333 | - |
| Simon Nicholas Westbrook | 80,356 | 59,523 | 20,833 | - |
| Terry L. Wilensky | 80,356 | 59,523 | 20,833 | - |
| Wolcot Capital, Inc. ^u | 95,356 ²⁴ | 59,523 | 20,833 | * |
| Michael H. Yokoyama and Jaye S. Venuti Family Trust | 40,177 | 29,761 | 10,416 | - |
| Paramount BioCapital, Inc. ^v | 4,532,534 | - | 509,275 | 6.4 |
| Totals | | 10,129,947 | 4,074,172 | |

* Less than 1%.

^a Konrad Ackerman, Director of Alpha Capital Anstalt, has voting and/or dispositive control over the shares held by such selling stockholder.

^b Michael Kopin, President of Downsvie Capital, Inc., the General Partner of Cranshire Capital, L.P., has sole voting and/or dispositive control over the shares held by such selling stockholder.

^c Jack Polak, General Partner of Domaco Venture Capital Fund, has voting and/or dispositive control over the shares held by such selling stockholder.

^d Jack Polak, President of Equity Interest, Inc., has voting and/or dispositive control over the shares held by such selling stockholder.

^e S. Edmond Farber and Steven M. Farber have voting and/or dispositive control over the shares held by such selling stockholder.

^f Steven W. Winters has voting and/or dispositive control over the shares held by such selling stockholder.

^g Robert Villiers has voting and/or dispositive control over the shares held by such selling stockholder.

^h Moise Hendeles has voting and/or dispositive control over the shares held by such selling stockholder.

ⁱ Glenn Durbin and Henry Swieca control Highbridge Capital Management, LLC, which controls Highbridge International LLC, and have voting and/or dispositive control over the shares held by such selling stockholder.

^j David George Jenner, Director of the Jasmine Trustees, has voting and/or dispositive control over the shares held by such selling stockholder.

^k Jamie Stahler has voting and/or dispositive control over the shares held by such selling stockholder.

^l Lara S. Conello, Analyst to Linden Capital Management IV, General Parte of Linden Growth Partners Master Fund, LP, has voting and/or dispositive control over the shares held by such selling stockholder.

^m Mark Rachesky has voting and/or dispositive control over the shares held by such selling stockholder.

ⁿ Hubert Marleau and Phillipe Marleau share voting and/or dispositive control over the shares held by such selling stockholder.

^o Ruki Renov has voting and/or dispositive control over the shares held by such selling stockholder.

^p Neil Herskowitz and Elliot Herskowitz have voting and/or dispositive control over the shares held by such selling stockholder.

^q Ronald M. Lazar and Anthony G. Polak have voting and/or dispositive control over the shares held by such selling stockholder.

^r Dov Perlysky has voting and/or dispositive control over the shares held by such selling stockholder.

^s Morris Wolfson, Portfolio Manager at South Ferry #2, LP, has voting and/or dispositive control over the shares held by such selling stockholder.

^t Wai Wah Tang has voting and/or dispositive control over the shares held by such selling stockholder.

^u Nick Ponzio has voting and/or dispositive control over the shares held by such selling stockholder.

^v Dr. Lindsay A. Rosenwald is the chairman of Paramount BioCapital, Inc., a registered broker-dealer, and has voting and dispositive control over the shares held by the selling stockholder.

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- ¹ Includes 43,980 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ² Includes 4,504 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ³ Includes 50,000 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ⁴ Includes 36,036 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ⁵ Includes 45,045 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ⁶ Includes 909 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ⁷ Includes 21,990 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ⁸ Includes 16,952 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ⁹ Includes 9,009 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ¹⁰ Does not include shares held by Riverside Contracting, LLC, which is named separately in this table. Mr. Elliot Herskowitz is a member of Riverside Contracting, LLC.
- ¹¹ Includes 122 shares of common stock.
- ¹² Includes 51,923 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ¹³ Includes 21,896 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ¹⁴ Includes 158,283 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ¹⁵ Includes 4,504 shares issuable upon currently exercisable warrants in addition to the warrants offered herein and shares owned by the Milstein Family LP.
- ¹⁶ Includes 196,453 shares of common stock.
- ¹⁷ Includes 12,981 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ¹⁸ Includes 34,971 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ¹⁹ Includes 27,027 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ²⁰ Includes 16,338 shares and 107,677 shares issuable upon exercise of options (which are currently vested) held by Neil Herskowitz, a member of Riverside Contracting, LLC and a director of the company.
- ²¹ Includes 42,914 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ²² Includes 9,587 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ²³ Includes 22,522 shares issuable upon currently exercisable warrants in addition to the warrants offered herein.
- ²⁴ Includes 15,000 shares held by Nicholas Ponzio, president of Wolcot Capital, Inc.

²⁵ Includes 4,023,259 shares beneficially owned by Dr. Lindsey A. Rosenwald, the chairman of Paramount BioCapital, Inc., based on the Schedule 13G/A filed by Dr. Rosenwald on February 13, 2007.

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PLAN OF DISTRIBUTION

We are registering the shares offered by this prospectus on behalf of the selling stockholders. The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. To the extent any of the selling stockholders gift, pledge or otherwise transfer the shares offered hereby, such transferees may offer and sell the shares from time to time under this prospectus, provided that this prospectus has been amended under Rule 424(b)(3) or other applicable provision of the Securities Act to include the name of such transferee in the list of selling stockholders under this prospectus.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
 - purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
 - an exchange distribution in accordance with the rules of the applicable exchange;
 - a transaction in accordance with the rules of the American Stock Exchange;
- privately negotiated transactions;
 - short sales;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
 - a combination of any such methods of sale; and
 - any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders might be, and any broker-dealers that act in connection with the sale of securities will be, deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act, and any commissions received by such broker-dealers and any profit on the resale of the securities sold by them while acting as principals will be deemed to be underwriting discounts or commissions under the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement that includes this prospectus effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (2) the date on which the shares may be sold pursuant to Rule 144(k) of the Securities Act.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. You should rely only on the information contained in this prospectus or incorporated herein by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of common stock.

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read, without charge, and copy the documents we file at the SEC's public reference rooms in Washington, D.C., New York, New York and Chicago, Illinois. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Our SEC filings are also available to the public at no cost from the SEC's website at <http://www.sec.gov>.

We incorporate by reference the filed documents listed below, except as superseded, supplemented or modified by this prospectus, and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act:

- our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2006;
 - our Quarterly Report on Form 10-Q for the quarter ended March 31, 2007;
- our definitive Proxy Statement filed on April 30, 2007 for our Annual Meeting of Stockholders to be held on May 24, 2007;
- our Current Reports on Form 8-K filed on January 12, 2007, February 5, 2007, March 30, 2007, April 5, 2007, and April 9, 2007, respectively; and
- the description of our common stock set forth in the registration statement on Form 8-A we filed with the SEC on October 6, 2005, including any amendments or reports filed for the purpose of updating such information.

The reports and other documents that we file after the date of this prospectus will update, supplement and supersede the information in this prospectus. You may request and obtain a copy of these filings, at no cost, by writing or telephoning us at the following address or phone number:

Manhattan Pharmaceuticals, Inc.
810 Seventh Avenue, 4th Floor
New York, NY 10019
Attention: Mr. Michael G. McGuinness
Telephone: (212) 582-3950

LEGAL MATTERS

The validity of the issuance of the shares of common stock offered hereby will be passed upon for us by Maslon Edelman Borman & Brand, LLP, Minneapolis, Minnesota.

EXPERTS

The consolidated financial statements of Manhattan Pharmaceuticals, Inc. included in our Annual Report on Form 10-KSB for the year ended December 31, 2006 and incorporated by reference in this registration statement have been audited by J.H. Cohn LLP, independent registered public accounting firm, as set forth in their report, which is also incorporated by reference in this registration statement. Such consolidated financial statements are incorporated by reference in reliance upon that report given on the authority of J.H. Cohn LLP as experts in accounting and auditing.

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus or any prospectus supplement. This prospectus is not an offer of these securities in any jurisdiction where an offer and sale is not permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock.

**14,259,674 Shares
of Common Stock**

Manhattan Pharmaceuticals, Inc.

Prospectus

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_____, **2007**

PART II**INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. *Other Expenses of Issuance and Distribution.***

The following table sets forth an estimate of the fees and expenses relating to the issuance and distribution of the securities being registered hereby, other than underwriting discounts and commissions, all of which shall be borne by Manhattan Pharmaceuticals, Inc. (the “Registrant” or the “Company”). All of such fees and expenses, except for the SEC Registration Fee, are estimated:

| | |
|---------------------------------|--------------|
| SEC registration fee | \$ 393.99 |
| Legal fees and expenses | 10,000.00 |
| Printing fees and expenses | 1,000.00 |
| Accounting fees and expenses | 10,000.00 |
| Miscellaneous fees and expenses | 2,000.00 |
| Total | \$ 23,393.99 |

Item 15. *Indemnification of Officers and Directors*

Under provisions of the amended and restated certificate of incorporation and bylaws of the Registrant, directors and officers will be indemnified for any and all judgments, fines, amounts paid in settlement and reasonable expenses, including attorneys fees, in connection with threatened, pending or completed actions, suits or proceedings, whether civil, or criminal, administrative or investigative (other than an action arising by or in the right of the Registrant), if such director or officer has been wholly successful on the merits or otherwise, or is found to have acted in good faith and in a manner he or she reasonably believes to be in or not opposed to the best interests of the Registrant, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. In addition, directors and officers will be indemnified for reasonable expenses in connection with threatened, pending or completed actions or suits by or in the right of Registrant if such director or officer has been wholly successful on the merits or otherwise, or is found to have acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Registrant, except in the case of certain findings by a court that such person is liable for negligence or misconduct in his or her duty to the Registrant unless such court or the Delaware Court of Chancery also finds that such person is nevertheless fairly and reasonably entitled to indemnity. The Registrant’s certificate of incorporation also eliminates the liability of directors of the Registrant for monetary damages to the fullest extent permissible under Delaware law.

Section 145 of the Delaware General Corporation Law states:

(a) A corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action arising by or in the right of the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding,

had reasonable cause to believe that his conduct was unlawful.

(b) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expense which the Court of Chancery or such other court shall deem proper.

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Securities and Securities and Exchange Commission Position Regarding Indemnification Liabilities Arising Under the Securities Act

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the Registrant pursuant to the foregoing provisions, the Registrant has been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is therefore unenforceable.

Item 16. Exhibits

a) Exhibits.

| Exhibit Number | Description of Document |
|-----------------------|---|
| 5.1 | Opinion of Maslon Edelman Borman & Brand, LLP (previously filed). |
| 23.1 | Consent J.H. Cohn LLP. |
| 23.2 | Consent of Maslon Edelman Borman & Brand, LLP (previously filed). |
| 24.1 | Power of Attorney (previously filed). |

Item 17. Undertakings.

The undersigned Registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that subparagraphs (i) and (ii) above do not apply if the information required to be included in a post-effective amendment by these subparagraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, as amended, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, as amended, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers, and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of New York, State of New York, on the 16th day of May, 2007.

Manhattan Pharmaceuticals, Inc.

By: /s/ Michael G. McGuinness

 Mr. Michael G. McGuinness
 Chief Financial Officer

Each person whose signature to this Registration Statement appears below hereby constitutes and appoints Douglas Abel and Michael G. McGuinness, signing singly, as his true and lawful attorney-in-fact and agent, with full power of substitution, to sign on his behalf individually and in the capacity stated below and to perform any acts necessary to be done in order to file all amendments to this Registration Statement and any and all instruments or documents filed as part of or in connection with this Registration Statement or the amendments thereto and each of the undersigned does hereby ratify and confirm all that said attorney-in-fact and agent, or his substitutes, shall do or cause to be done by virtue hereof. The undersigned also grants to said attorneys-in-fact, full power and authority to do and perform any and all acts necessary or incidental to the performance and execution of the powers herein expressly granted. This Power of Attorney shall remain in effect until revoked in writing by the undersigned.

Pursuant to the requirements of the Securities Act of 1933, the following persons in the capacities and on the dates indicated have signed this Registration Statement below.

| | | |
|---|--|--------------|
| <u>/s/ Douglas Abel</u> Douglas Abel | Chief Executive Officer, President and Director (principal executive officer) | May 16, 2007 |
| <u>/s/ Michael G. McGuinness</u> Michael G. McGuinness | Chief Financial Officer and Secretary (principal financial and accounting and officer) | May 16, 2007 |
| * _____ Neil Herskowitz | Director | May 16, 2007 |
| * _____ Malcolm Hoenlein | Director | May 16, 2007 |
| <u>/s/ Timothy McInerney</u> Timothy McInerney | Director | May 16, 2007 |
| <u>/s/ Joan Pons</u> Joan Pons | Director | May 16, 2007 |
| * _____ Richard Steinhart | Director | May 16, 2007 |

/s/ Michael Weiser
Michael Weiser

Director

May 16, 2007

* By:/s/ Michael G. McGuinness
Michael G. McGuinness
Attorney-in-fact

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INDEX TO EXHIBITS

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