

MANHATTAN PHARMACEUTICALS INC  
Form SB-2/A  
July 09, 2004

As filed with the Securities and Exchange Commission July 9, 2004

Registration No. 333-111897

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

PRE-EFFECTIVE AMENDMENT NO. 2 TO

FORM SB-2

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

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**Manhattan Pharmaceuticals, Inc.**

(Name of small business issuer in its charter)

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

**8731**  
(Primary Standard Industrial  
Classification Code Number)

**36-3898269**  
(I.R.S. Employer  
Identification No.)

787 Seventh Avenue, 48th Floor  
New York, New York 10019  
(212) 554-4525

(Address and telephone number of principal executive offices and principal place of business)

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**Approximate date of proposed sale to the public:** From time to time after the effective date of this Registration Statement, as shall be determined by the selling stockholders identified herein.

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 post-effective amendment filed pursuant to Rule 462(d) 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 delivery of the prospectus is expected to be made pursuant to Rule 434, please 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 which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the

Commission, acting pursuant to said Section 8(a), may determine.

**OFFERING PROSPECTUS**

[MP Logo]

**Manhattan Pharmaceuticals, Inc.**

**21,029,163 Shares**

**Common Stock**

The selling stockholders identified on pages 40-46 of this prospectus are offering on a resale basis a total of 21,029,163 shares of our common stock, including 10,000,000 shares issuable upon conversion of our Series A Convertible Preferred Stock and 3,437,460 shares issuable upon the exercise of outstanding warrants. We will not receive any proceeds from the sale of these shares by the selling stockholders.

Our common stock is quoted on the Over-the-Counter Bulletin Board under the symbol MHTT. On , 2004, the last sale price for our common stock as reported on the OTC Bulletin Board was \$ .

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**The securities offered by this prospectus involve a high degree of risk.**

**See Risk Factors beginning on page 5.**

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

The date of this Prospectus is , 2004.

A registration statement relating to these securities has been filed with the Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This prospectus shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

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## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus. Because it is a summary, it may not contain all of the information that is important to you. Accordingly, you are urged to carefully review this prospectus in its entirety.*

### Our Company

We are engaged in the business of developing and commercializing early-stage technologies, particularly biomedical and pharmaceutical technologies. We aim to acquire proprietary rights to these technologies, by license or acquisition of an ownership interest, fund their research and development and eventually bring the technologies to market. We currently are researching and developing two biomedical technologies: oleoyl-estrone, an orally administered hormone which we believe can be used to treat obesity; and lingual spray propofol, a proprietary lingual spray technology to deliver propofol for pre-procedural sedation prior to diagnostic, therapeutic or endoscopic procedures. To date, we have not commenced clinical testing of either of our product candidates and neither product candidate has been approved by the United States Federal Drug Administration or any other regulatory body. Further, we have not received any commercial revenues to date and, until we receive the necessary approvals from the FDA or a similar foreign regulatory authority, we will not have any commercial revenues.

We were incorporated in Delaware in May 1993 under the name Atlantic Pharmaceuticals, Inc. and, in March 2000, we changed our name to Atlantic Technology Ventures, Inc. On February 21, 2003, we completed a reverse acquisition of privately-held Manhattan Research Development, Inc. (formerly Manhattan Pharmaceuticals, Inc.), a Delaware corporation. To effect this transaction, we caused Manhattan Pharmaceuticals Acquisition Corp., our wholly-owned subsidiary, to merge with and into Manhattan Research Development, with Manhattan Research Development surviving as our wholly owned subsidiary. In accordance with the terms of the merger, the outstanding common stock of Manhattan Research Development automatically converted into the right to receive an aggregate of approximately 80 percent of our outstanding common stock (after giving effect to the transaction). In connection with the merger, we also changed our name to Manhattan Pharmaceuticals, Inc.

Our executive offices are located at 787 Seventh Avenue, 48th Floor, New York, New York, 10019 and our telephone number is (212) 554-4525. Our Internet site is [www.manhattanpharma.com](http://www.manhattanpharma.com).

### Recent Developments

In January 2004, we completed a private placement of 3,368,637 shares of our common stock at a per share price of \$1.10. After deducting commissions and other expenses relating to the private placement, we received aggregate net proceeds of approximately \$3,444,000. We also issued to a placement agent engaged in connection with the private placement of 5-year warrant to purchase 336,864 shares of our common stock at a price of \$1.10 per share.

**Risk Factors**

For a discussion of some of the risks you should consider before purchasing shares of our common stock, you are urged to carefully review and consider the section entitled "Risk Factors" beginning on page 5 of this prospectus.

**The Offering**

The selling stockholders identified on pages 40-46 of this prospectus are offering on a resale basis a total of 21,029,163 shares of our common stock as follows:

- 1 3,368,639 shares of our outstanding common stock issued in connection with our January 2004 private placement;
- 1 326,499 shares of our common stock issuable at a price of \$1.10 per share upon the exercise of a warrant issued to a placement agent in connection with our January 2004 private placement;
- 1 6,323,261 shares of our common stock issued in connection with a private placement by Manhattan Research Development, Inc. prior to that company's merger with us in February 2003, of which 2,100,195 shares are issuable at a price of \$0.70 per share upon the exercise of outstanding warrants issued in connection with that private placement;
- 1 10,000,000 shares of common stock are issuable upon the conversion of our Series A Convertible Preferred Stock, which includes 1,000,000 shares of common stock issuable upon conversion of shares of Series A Preferred Stock to be issued as payment of dividends through November 2005;
- 1 909,090 shares issuable at an exercise price of \$1.10 per share upon the exercise of outstanding warrants issued as compensation to placement agents (and their assigns) in connection with our Series A Convertible Preferred Stock offering;
- 1 101,676 shares issuable at a price of \$0.70 per share upon the exercise of warrants issued to scientific advisors.

Common stock offered	21,029,163 shares
Common stock outstanding before the offering <sup>(1)</sup>	26,741,033 shares
Common stock outstanding after the offering <sup>(2)</sup>	40,178,493 shares
Common Stock OTC Bulletin Board symbol	MHTT

(1) Based on the number of shares outstanding as of July 8, 2004, not including (a) 5,021,025 shares issuable upon exercise of various warrants and options to purchase common stock; or (b) shares issuable upon the conversion of the Series A Preferred Stock.

(2) Assumes the issuance of all shares offered hereby that are issuable upon conversion of our Series A Preferred Stock or upon exercise of warrants.

## RISK FACTORS

*An investment in our common stock is very risky. You may lose the entire amount of your investment. Prior to making an investment decision, you should carefully review this entire prospectus and consider the following risk factors:*

### **Risks Relating 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 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, however, and we expect to continue to have negative cash flow from our operations for at least the next several years. As of March 31, 2004, we had \$9,543,071 of cash or cash equivalents and we expect that this amount will be sufficient to fund our business through approximately March 31, 2006. We expect to file INDs for both of our product candidates in 2004, which when accepted by the FDA for review, will trigger a \$1 million milestone payment to NovaDel Pharma, Inc., from which we license propofol lingual spray. We expect to commence Phase I trials for oleoyl-estrone in 2005, which will trigger a \$250,000 milestone payment to Oleoyl-estrone Developments, from which we license that candidate. We believe that our current cash reserves are sufficient to fund our development plans for oleoyl-estrone through Phase I trials and for lingual spray propofol through Phase III trials. We will have to raise additional funds to complete the development of our drug candidates and to bring them to market, however. Beyond the capital requirements mentioned above, our future capital requirements will depend on numerous factors, including:

- 1 the results of any clinical trials;
- 1 the scope and results of our research and development programs;
- 1 the time required to obtain regulatory approvals;
- 1 our ability to establish and maintain marketing alliances and collaborative agreements; and
- 1 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. For each of the fiscal years ended December 31, 2003 and 2002 and from August 6, 2001 (inception) through December 31, 2001, we realized net losses of \$5,960,907, \$1,037,320, and \$56,796, respectively. Even if we succeed in developing and commercializing one or both of our current 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:

- 1 continue to undertake pre-clinical development and clinical trials for our product candidates;
- 1 seek regulatory approvals for our product candidates;
- 1 implement additional internal systems and infrastructure;
- 1 lease additional or alternative office facilities; and
- 1 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:

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

Since inception as Manhattan Research Development, Inc., our operations have been limited to organizing and staffing, and acquiring, developing and securing our proprietary technology and undertaking 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. We have not yet filed an IND for either of our product candidates. We expect to do so until late in 2004, assuming no unexpected findings are made during the balance of toxicology and pharmacology testing that will precede the IND filings. If the FDA allows our INDs, then we expect to commence Phase I clinical studies for each of oleoyl-estrone and lingual spray propofol in 2005. 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 III trial following completion of our planned Phase I trials. Accordingly, we currently anticipate that development of propofol lingual spray may be completed in 2006. See "Business - Lingual Spray Propofol." We are unable to estimate the size and timing of the Phase I program 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:

- 1 delay commercialization of, and our ability to derive product revenues from, our product candidates;
- 1 impose costly procedures on us; and
- 1 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 our product candidates. Failure to obtain FDA approval 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:

- 1 unforeseen safety issues;
- 1 determination of dosing issues;
- 1 lack of effectiveness during clinical trials;
- 1 slower than expected rates of patient recruitment;
- 1 inability to monitor patients adequately during or after treatment; and
- 1 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 and 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. We expect that our clinical trials will only involve a small sample size. 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 products will depend upon a number of factors including:

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

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

***Our drug-development program will depend upon third-party researchers and other collaborators who are outside our control.***

We currently are collaborating with NovaDel Pharma, from which we license our rights to lingual spray propofol, in the development of that product candidate in the pre-clinical and early clinical trial stages. Under our agreement with NovaDel, it has agreed to perform certain development on our behalf and at our expense, including formulation stability testing, formulation analytic method development and testing and manufacture of clinical trial material for the pre-clinical and early clinical development of propofol lingual spray. Beyond those limited activities, we need to engage independent investigators and other third party collaborators to conduct pre-clinical and clinical trials for lingual spray propofol. We are not currently collaborating with any third party with respect to the development of oleoyl-estrone, but we intend to engage third party independent investigators and collaborators, which may include universities and medical institutions, to conduct our pre-clinical and clinical trials for that product candidate, as well. Accordingly, the successful development of our product candidates will depend on the performance of these third parties. These collaborators will not be our employees, however, and we cannot control the amount or timing of resources that they will devote to our programs. Our collaborators may not assign as great a priority to our programs or pursue them as diligently as we would if we were undertaking such programs ourselves. If outside collaborators fail to devote sufficient time and resources to our drug-development programs, or if their performance is substandard, the approval of our FDA applications, if any, and our introduction of new drugs, if any, will be delayed. These collaborators may also have relationships with other commercial entities, some of whom may compete with us. If our collaborators assist our competitors at our expense, our competitive position would be harmed.

*We will 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 currently have no contract for the manufacture of our product candidate. We intend to contract with one or more manufacturers to manufacture, supply, store and distribute drug supplies for our clinical trials. If any of our product candidates receive FDA approval, we will rely on one or more third-party contractors to manufacture our drugs. Our anticipated future reliance on a limited number of third-party manufacturers, exposes us to the following risks:

- 1 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.
- 1 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.
- 1 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.
- 1 Drug manufacturers are subject to ongoing periodic unannounced inspection by the FDA, the DEA, and corresponding state agencies to ensure strict compliance with good manufacturing practice and other government regulations and corresponding foreign standards. We do not have control over third-party manufacturers' compliance with these regulations and standards.
- 1 If any third-party manufacturer makes improvements in the manufacturing process for our products, we may not own, or may have to share, the intellectual property rights to the innovation.

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

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

Our future contract manufacturers may not perform as agreed or may not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products. Drug manufacturers are subject to ongoing periodic unannounced inspection by the FDA, the DEA, and corresponding state agencies to ensure strict compliance with good manufacturing practice and other government regulations and corresponding foreign standards. We do not have control over third-party manufacturers' compliance with these regulations and standards. 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 approval, 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 our products, however, there can be no assurance that we will be able to establish or maintain such collaborative arrangements, or if able to do so, that they will have effective sales forces. To the extent that we decide not to, or are unable to, enter into collaborative arrangements with respect to the sales and marketing of 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:

- 1 developing drugs;
- 1 undertaking pre-clinical testing and human clinical trials;
- 1 obtaining FDA and other regulatory approvals of drugs;
- 1 formulating and manufacturing drugs; and
- 1 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 Regeneron Pharmaceuticals, Inc. 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 may 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 or patent applications. We license the exclusive rights to two issued patents relating to oleoyl-estrone, which expire in 2016, and three patent applications. We also license the exclusive rights to three issued patents relating to lingual spray propofol, which expire from 2016 to 2017. In addition, our license for propofol lingual spray covers one pending patent application. See Business Intellectual Property and License Agreements. There are no other pending patent applications relating to either of our product candidates, although we anticipate the need to file additional patent applications both in the U.S. and in other countries, as appropriate.

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:

- 1 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;
- 1 if and when patents will issue;
- 1 whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications; or
- 1 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 agreements with Oleoylestrone Developments and NovaDel Pharma, from which we license oleoyl-estrone and lingual spray propofol, respectively, that generally prohibit those companies from disclosing information relating to our licensed technology, the respective license agreements allow for each company 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:

- 1 obtain licenses, which may not be available on commercially reasonable terms, if at all;
- 1 redesign our products or processes to avoid infringement;
- 1 stop using the subject matter claimed in the patents held by others;
- 1 pay damages; or
- 1 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:

- 1 government and health administration authorities;
- 1 private health maintenance organizations and health insurers; and
- 1 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.

***We rely on our chief executive officer and his knowledge and technical expertise would be difficult to replace.***

We are highly dependent on Leonard Firestone, our president and chief executive officer. We are not aware that Dr. Firestone has any plans to leave the company. We do not have key person life insurance policies for any of our officers, including Dr. Firestone. The loss of the technical knowledge and management and industry expertise that would result from the event Dr. Firestone left our company could result in delays in the development of our product candidates and diversion of management resources.

***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 \$2,000,000, 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 47 percent of our outstanding voting stock and, including shares underlying outstanding options and warrants, this group beneficially owns approximately 51 percent of our common stock. Accordingly, these persons and their respective affiliates 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**

***Trading of our common stock is limited.***

Trading of our common stock is conducted on the National Association of Securities Dealers Over-the-Counter Bulletin Board, or OTC Bulletin Board. This has adversely effected the liquidity of our securities, not only in terms of the number of securities 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.

***Because it is a penny stock, it will be more difficult for you to sell shares of our common stock.***

In addition, our common stock is a penny stock. Broker-dealers who sell penny stocks must provide purchasers of these stocks with a standardized risk-disclosure document prepared by the SEC. This document provides information about penny stocks and the nature and level of risks involved in investing in the penny-stock market. A broker must also give a purchaser, orally or in writing, bid and offer quotations and information regarding broker and salesperson compensation, make a written determination that the penny stock is a suitable investment for the purchaser, and obtain the purchaser's written agreement to the purchase. The penny stock rules may make it difficult for you to sell your shares of our stock. Because of the rules, there is less trading in penny stocks. Also, many brokers choose not to participate in penny-stock transactions. Accordingly, you may not always be able to resell shares of our common stock publicly at times and prices that you feel are appropriate.

***A significant number of shares of our common stock are or will become available for sale and their sale could depress the price of our common stock.***

A substantial number of shares of our common stock are being offered by this prospectus. In addition, on February 21, 2004, up to 18,689,916 shares of our outstanding common stock that were issued in connection with our acquisition of Manhattan Research Development, Inc. became available for sale pursuant to Rule 144 under the Securities Act. We may also issue additional shares in connection with our business and may grant additional stock options to our employees, officers, directors and consultants or warrants to third parties. Sales of a substantial number of shares of our common stock in the public market after this offering could adversely affect the market price for our common stock and make it more difficult for you to sell our shares at times and prices that you feel are appropriate.

***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 years, the price of our common stock has ranged from a low of \$0.25 per share to a high of \$2.50, as adjusted for our 1-for-5 reverse stock split in September 2003. 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:

- 1 publicity regarding actual or potential clinical results relating to products under development by our competitors or us;
- 1 delay or failure in initiating, completing or analyzing pre-clinical or clinical trials or the unsatisfactory design or results of these trials;
- 1 achievement or rejection of regulatory approvals by our competitors or us;
- 1 announcements of technological innovations or new commercial products by our competitors or us;
- 1 developments concerning proprietary rights, including patents;
- 1 developments concerning our collaborations;
- 1 regulatory developments in the United States and foreign countries;
- 1 economic or other crises and other external factors;
- 1 period-to-period fluctuations in our revenues and other results of operations;
- 1 changes in financial estimates by securities analysts; and
- 1 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 never paid dividends.***

We have never paid dividends on our capital 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.

**NOTE REGARDING FORWARD-LOOKING STATEMENTS**

Certain statements contained in this prospectus that are forward-looking in nature are based on the current beliefs of our management as well as assumptions made by and information currently available to management, including statements related to the markets for our products, general trends in our operations or financial results, plans, expectations, estimates and beliefs. In addition, when used in this prospectus, the words may, could, should, anticipate, believe, estimate, expect, intend, plan, predict and similar expressions and their variants, as they relate to management, may identify forward-looking statements. These statements reflect our judgment as of the date of this prospectus with respect to future events, the outcome of which is subject to risks, which may have a significant impact on our business, operating results or financial condition. You are cautioned that these forward-looking statements are inherently uncertain. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results or outcomes may vary materially from those described herein. We undertake no obligation to update forward-looking statements. The risks identified under the heading Risk Factors in this prospectus, among others, may impact forward-looking statements contained in this prospectus.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion of our results of operations and financial condition in conjunction with our audited financial statements as of and for the year ended December 31, 2003 and our unaudited interim financial statements as of and for the three months ended March 31 2004, all of which are included in this prospectus. This discussion includes forward-looking statements that reflect our current views with respect to future events and financial performance. We use words such as we expect, anticipate, believe, and intend and similar expressions to identify forward-looking statements. Investors should be aware that actual results may differ materially from our expressed expectations because of risks and uncertainties inherent in future events, particularly those risks identified in the Risk Factors section of this prospectus, and should not unduly rely on these forward looking statements. All share and per share information in this discussion has been adjusted for the 1-for-5 combination of our common stock effected on September 25, 2003.

### Overview

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

We are a development stage biopharmaceutical company that holds an exclusive world-wide, royalty-free license to certain intellectual property related to oleoyl-estrone, which is owned by Oleoyl-Estrone Developments, SL of Barcelona, Spain. Oleoyl-estrone is an orally administered small molecule that has been shown to cause significant weight loss in pre-clinical animal studies regardless of dietary modifications. We also hold the worldwide, exclusive rights to proprietary lingual spray technology to deliver the drug propofol for procedural sedation prior to diagnostic, therapeutic or endoscopic procedures.

You should read the following discussion of our results of operations and financial condition in conjunction with the audited consolidated financial statements for the years ended December 31, 2003 and 2002 (and the related notes), as well as our unaudited interim financial statements for the quarter ended March 31, 2004 (and the related notes), appearing elsewhere in this prospectus. This discussion includes forward-looking statements that reflect our current views with respect to future events and financial performance. We use words such as we expect, anticipate, believe, and intend and similar expressions to identify forward-looking statements. Investors should be aware that actual results may differ materially from our expressed expectations because of risks and uncertainties inherent in future events, particularly those risks identified under the heading Risk Factors in this prospectus, and should not unduly rely on these forward looking statements. All share and per share information in this discussion has been adjusted for the 1-for-5 combination of our common stock effected on September 25, 2003.

### Results of Operations

#### *Three-Month Period Ended March 31, 2004 vs. 2003*

During the quarters ended March 31, 2004 and 2003, we had no revenue. We do not expect to have significant revenues relating to our technologies within the next twelve months.

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For the quarter ended March 31, 2004, research and development expense was \$709,273 as compared to \$43,355 for the first quarter of 2003. The increase of \$665,918 is due primarily to an acceleration of pre-clinical development of our Oleoyl-estrone drug and to the pre-clinical and clinical development of our Propofol Lingual Spray, which was licensed in 2003.

For the quarter ended March 31, 2004, general and administrative expense was \$413,238 as compared to \$378,872 for the quarter ended March 31, 2003. The increase of \$34,366 is due primarily to an increase in payroll expenses of approximately \$84,000 and an increase in insurance and other expenses of approximately \$33,000 and \$2,000 respectively. These increases are partially offset by decreases in legal, accounting and amortization expenses of approximately \$38,000, \$31,000 and \$26,000 respectively.

For the quarter ended March 31, 2004, interest income was \$27,163 as compared to \$2,515 for the quarter ended March 31, 2003. The increase of \$24,648 is a result of an increase in cash reserves.

Net loss for the quarter ended March 31, 2004, was \$1,095,348 as compared to \$421,945 for the quarter ended March 31, 2003. This increase in net loss is attributable primarily to an increase in research and development expenses of \$665,918 and an increase in general and administrative expenses of \$34,366. These expense increases are partially offset by an increase in interest income of \$24,648.

### ***Fiscal Year 2003 vs. 2002***

During each of the years ended December 31, 2003 and 2002, we had no revenue.

For the year ended December 31, 2003, research and development expense was \$1,724,043 as compared to \$700,798 for the year ended December 31, 2002. The increase of \$1,023,245 is due in part to an acceleration of pre-clinical and clinical development for product candidates, oleoyl-estrone and propofol lingual spray of approximately \$256,000. Related research and development consulting increased by approximately \$267,000. In addition, in connection with our license agreement with NovaDel Pharma Inc., we made license payments of \$500,000 in 2003 which we did not have in 2002.

For the year ended December 31, 2003, general and administrative expense was \$1,786,080 as compared to \$317,384 for the year ended December 31, 2002. The increase of \$1,468,696 is due primarily to expenses associated with hiring full time employees and consultants of approximately \$572,000 and \$261,000, respectively. In addition, we had increases in legal and accounting fees of approximately \$220,000 associated with becoming subject to the reporting obligations under the Exchange Act following completion of the Atlantic Technology Ventures, Inc. - Manhattan Research Development, Inc. merger in February 2003. Insurance, recruiters fees, travel, transfer agent fees and other expenses increased by approximately \$144,000, \$46,000, \$32,000, \$28,000 and \$21,000, respectively. Finally, in 2003, we had amortization of intangible assets of approximately \$145,000.

Net loss for the year ended December 31, 2003, was \$5,960,907 as compared to \$1,037,320 for the year ended December 31, 2002. This increase in net loss is attributable to the factors described above and to a loss on the disposition of intangible assets as a result of our sale of our remaining rights to CT-3 to Indevus Pharmaceuticals, Inc. of \$1,213,878 as well as an impairment of intangible assets of \$1,248,230 as a result of a decision by Bausch & Lomb not to pursue the Avantix cataract removal technology.

### ***Fiscal Year 2002 vs. 2001***

We had no revenue during the year ended December 31, 2002 and from August 6, 2001 (date of inception) through December 31, 2001.

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For the year ended December 31, 2002, research and development expense was \$700,798 as compared to \$24,599 during 2001. The increase of \$676,199 is due to the fact that substantially all of the pre-clinical work was done in 2002. In addition, we paid license fees of \$175,000 in connection with our licensing exclusive world wide rights to our product candidate oleoyl-estrone to Oleoyl-estrone Developments, Inc in 2002.

For the year ended December 31, 2002, general and administrative expense was \$317,384 as compared to \$32,197 for 2001. This increase of \$285,187 was primarily due to various activities that occurred in 2002 including the following: recruiting fees in connection with recruiting management, office service fees, accounting fees for the audits, patent review and other due diligence expenses.

Interest expense was \$19,138 for the year ended December 30, 2002 compared to zero in 2001. This increase was caused by bank loans entered into in 2002. The proceeds of the bank loans were used for general corporate purposes. The loans were repaid in full in December, 2003.

Net loss for the year ended December 31, 2002 was \$1,037,320 as compared to \$56,796 for the interim period of 2001. This increase in net loss is primarily due to an increase in research and development expenses of \$645,562. In addition, we had an increase in general and administrative expenses of \$315,824 and an increase in interest expense of \$19,138.

### Liquidity and Capital Resources

From inception to March 31, 2004, we incurred an accumulated deficit of \$8,780,676, and we expect to continue to incur additional losses through the year ending March 31, 2005 and for the foreseeable future. This loss has been incurred through a combination of research and development activities related to the various technologies under our control and expenses supporting those activities.

During 2002, our subsidiary, Manhattan Research Development, Inc. ( Manhattan Research ) commenced a private placement and sold 239,450 shares of common stock at \$8 (\$0.63 post merger) per share and received proceeds of \$1,704,318, net of expenses of \$211,181. These shares converted into 3,043,332 shares of our common stock when we completed a reverse acquisition of Manhattan Research. In addition, each investor received warrants equal to 10% of the number of shares of common stock purchased and, accordingly, Manhattan Research issued warrants to purchase 23,945 shares of common stock in 2002 in connection with the private placement. Upon the merger, these converted into warrants to purchase 304,333 shares of our common stock. Each warrant had an exercise price of \$8 per share, which post merger converted to \$0.63. These warrants expire in 2007.

During January and February 2003, Manhattan Research sold an additional 104,000 shares of common stock at \$8 (\$0.63, post merger) per share and warrants to purchase 10,400 shares of common stock exercisable at \$8 (\$0.63 post merger) through the private placement and received net proceeds of \$743,691. These shares converted into 1,321,806 shares of our common stock when we completed our reverse acquisition of Manhattan Research. The warrants to purchase 10,400 shares of common stock converted into warrants to purchase 132,181 common shares of the combined Company.

In addition, in connection with the private placement, Manhattan Research issued to Joseph Stevens & Co., Inc., a NASD-member broker-dealer, warrants to purchase 130,511 shares of its common stock that are exercisable at \$8 (\$0.63 post merger) per share and expire in 2008. Upon the merger, these warrants converted into warrants to purchase 1,658,753 shares of common stock of the combined Company.

On January 13, 2004, we completed a private placement of 3,368,637 shares of our common stock at a per share price of \$1.10. After deducting commissions and other expenses relating to the private placement, we received aggregate net proceeds of approximately \$3,431,000. We also issued to the placement agent engaged in connection with the private placement a 5-year warrant to purchase 326,499 shares of common stock at a price of \$1.10 per share.

On November 7, 2003, we completed a private placement of 1,000,000 shares of our newly-designated Series A Convertible Preferred Stock at a price of \$10 per share, resulting in gross proceeds to us of \$10,000,000. Each share of Series A Convertible Preferred Stock is convertible at the holder's election into shares of our common stock at a conversion price of \$1.10 per share. The conversion price of the Series A Convertible Preferred Stock was less than the market value of our common stock on November 7, 2003. Accordingly, we recorded a charge for the beneficial conversion feature associated with the convertible preferred stock of \$418,182. In the event that the shares of Series A Convertible Preferred Stock were immediately converted into common stock on November 7, 2003, the 2003 net loss per common share would have been reduced from \$0.28 to \$0.27. In addition, the net loss per common share for the three months ended March 31, 2004 would have been reduced from \$0.05 to \$0.03.

Under an equity-line-of-credit arrangement, Fusion Capital has committed to purchasing \$6,000,000 of our common stock. Our stock price is currently below the \$3.40 minimum required in order for us to be able to sell shares of our common stock to Fusion, but if in the future our stock price exceeds this minimum, we may elect to sell shares of our common stock to Fusion under the equity-line-of-credit arrangement. In addition, in November 2001, Fusion Capital waived the \$3.40 minimum and purchased from us under the equity-line-of-credit arrangement 83,333 shares of our common stock at a price per share of \$1.20, representing an aggregate purchase price of \$100,000. Fusion Capital again

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waived the \$3.40 minimum in May 2002 and purchased 2,000 shares of common stock for an aggregate purchase price of \$1,667.

The purchase price for the common stock to be issued to Fusion Capital under our equity-line-of credit arrangement with Fusion Capital will fluctuate based on the closing price of our common stock. Fusion Capital may at any time sell none, some or all of the shares of common stock purchased from us. Depending upon market liquidity at the time, sale by Fusion of shares we issue to them could cause the trading price of our common stock to decline. Sale of a substantial number of shares of our common stock by Fusion, or anticipation of such sales, could make it more difficult for us to sell equity or equity related securities in the future at a time and at a price that it might otherwise wish to effect sales. We currently have no plans to seek financing under this arrangement.

We have financed our operations since inception primarily through equity and debt financing and our licensing and sale of residual royalty rights of CT-3 to Indevus. During the quarter ended March 31, 2004, we had a net increase in cash and cash equivalents of \$2,129,268. This increase primarily resulted from net cash provided by financing activities of \$3,443,665, substantially all of which was from the private placement, offset by net cash used in operating activities of \$1,280,405 for the quarter ended March 31, 2004. Total cash resources as of March 31, 2004 were \$9,543,071 compared to \$7,413,803 at December 31, 2003.

In April 2003, we entered into a license and development agreement with NovaDel Pharma, Inc. ( NovaDel ), under which we received certain worldwide, exclusive rights to develop and commercialize products related to NovaDel's proprietary lingual spray technology for delivering propofol for pre-procedural sedation. Under the terms of this agreement, we agreed to use our commercially reasonable efforts to develop and commercialize the licensed products, to obtain necessary regulatory approvals and to thereafter exploit the licensed products. The agreement also provides that NovaDel will undertake to perform, at our expense, a substantial portion of the development activities, including without limitation, preparation and filing of various applications with applicable regulatory authorities.

In consideration of the license, we are required to make certain license and milestone payments. Specifically, we were required to pay a \$500,000 license fee at such time as we had completed a financing transaction resulting in aggregate gross proceeds of at least \$10,000,000. Accordingly, upon completion of our sale of \$10,000,000 of our Series A Convertible Preferred Stock in November 2003, we paid and expensed the \$375,000 balance of the license fee.

We are also required to make various milestone payments to NovaDel under the license agreement as follows:

- 1 \$1,000,000 payable following the date that the first IND for lingual spray propofol is accepted for review by the FDA;
- 1 \$1,000,000 following the date that the first European Marketing Application is accepted for review by any European Union country;
- 1 \$2,000,000 following the date when the first filed NDA for lingual spray propofol is approved by the FDA;
- 1 \$2,000,000 following the date when the first filed European Marketing Application for lingual spray propofol is approved by a European Union country;
- 1 \$1,000,000 following the date on which an application for commercial approval of lingual spray propofol is approved by the appropriate regulatory authority in each of Australia, Canada, Japan and South Africa; and
- 1 \$50,000 following the date on which an application for commercial approval for lingual spray propofol is approved in any other country (other than the U.S. or a member of the European Union).

In addition, we are obligated to pay to NovaDel an annual royalty based on a fixed rate of net sales of licensed products, or if greater, the annual royalty is based on our net profits from the sale of licensed products at a rate that is twice the net sales rate. In the event we sublicense the licensed product to a third party, we are obligated to pay royalties based on a fixed rate of fees or royalties received from the sublicensee until such time as we recover our out-of-pocket costs, and thereafter the royalty rate doubles. Because of the continuing development efforts required of NovaDel under the agreement, the royalty rates are substantially higher than customary for the industry.

NovaDel may terminate the agreement (i) upon 10 days' notice if we fail to make any required milestone or royalty payments, or (ii) if we become bankrupt or if a petition in bankruptcy or insolvency is filed and not dismissed within 60 days or if we become subject to a receiver or trustee for the benefit of creditors. Each party may terminate the agreement upon 30 days' written notice and an opportunity to cure in the event the other party committed a material breach or default. We may also terminate the agreement for any reason upon 90 days' notice to NovaDel.

Our available working capital and capital requirements will depend upon numerous factors, including progress of our research and development programs, our progress in and the cost of ongoing and planned pre-clinical and clinical testing, the timing and cost of obtaining regulatory approvals, the cost of filing, prosecuting, defending, and enforcing patent claims and other intellectual property rights, competing technological and market developments, changes in our existing collaborative and licensing relationships, the resources that we devote to developing manufacturing and commercializing capabilities, technological advances, the status of our competitors, our ability to establish collaborative arrangements with other organizations and our need to purchase additional capital equipment.

Our continued operations will depend on whether we are able to raise additional funds through various potential sources, such as equity and debt financing, other collaborative agreements, strategic alliances, and our ability to realize the full potential of our technology in development. Such additional funds may not become available on acceptable terms and there can be no assurance that any additional funding that we do obtain will be sufficient to meet our needs in the long term. Through March 31, 2004, a significant portion of our financing has been through private placements of common stock and warrants and debt financing. Unless our operations generate significant revenues, we will continue to fund operations from cash on hand and through the similar sources of capital previously described. We can give no assurances that any additional capital that we are able to obtain will be sufficient to meet our needs. Management believes that we will continue to incur net losses for the foreseeable future. Based on the resources available to us at March 31, 2004, management believes that we will need additional equity or debt financing or will need to generate revenues during 2005 through licensing our products or entering into strategic alliances to be able to sustain our operations through 2005 until we can achieve profitability, if ever.

Our common stock is quoted on the OTC Bulletin Board under the symbol MHTT.OB . This has an adverse effect on the liquidity of our common stock, not only in terms of the number of shares that can be bought and sold at a given price, but also through delays in the timing of transactions and reduction in security analysts' and the media's coverage of us. This may result in lower prices for shares of our common stock than might otherwise be obtained and could also result in a larger spread between the bid and asked prices for shares of our common stock.

#### ***Research and Development Projects***

***Oleoyl-estrone.*** In December 2003, we submitted to the FDA a pre Investigational New Drug, or IND, information package about our oleoyl-estrone development program. Utilizing the FDA's review of the pre-IND application, we have completed the design of the balance of the preclinical program for oleoyl-estrone, and are currently assembling the IND application while we complete the remaining toxicology and pharmacology studies. We expect to file the IND application by the end of 2004, assuming no unexpected findings are made during the balance of the preclinical studies. Following the FDA's allowance of our IND application, we intend to immediately begin the Phase I human program in the United States in 2005. Under our license agreement with Oleoyl-Estrone Developments, we will be required to make a \$250,000 milestone payment upon the treatment of the first patient in a Phase I trial. Given the uncertainties inherent in early human clinical trials, it is difficult to predict with accuracy when the Phase I program will be completed and, consequently, the timing of subsequent clinical trial programs and any eventual approval by the FDA.

Through March 31, 2004, we have incurred \$1,744,135 of project costs related to our development of oleoyl-estrone, of which \$756,054 was incurred in fiscal 2003, and \$262,684 has been incurred in the first quarter of 2004. Currently, we anticipate that we will need to expend approximately an additional \$1,500,000 to \$2,500,000 in development costs in fiscal 2004. Since oleoyl-estrone is regarded by the FDA as a new entity, we are not currently able to predict the size and the design of the Phase I study at this time and, accordingly, we cannot currently estimate the total costs of completing development of oleoyl-estrone.



Although we currently have sufficient capital to fund our anticipated 2004 R&D expenditures relating to oleoyl-estrone, we will need additional raise capital from debt financings or by selling shares of our capital stock in order to complete the anticipated five or six year development program for the product. If we are unable to raise such additional capital, we may have to sublicense our rights to oleoyl-estrone to a third party as a means of continuing development, or, although less likely, we may be required to abandon further development efforts altogether, either of which would have a material adverse effect on the prospects of our business.

In addition to raising additional capital, whether we are successful in developing oleoyl-estrone is dependent on numerous other factors, including unforeseen safety issues, lack of effectiveness, significant unforeseen delays in the clinical trial and regulatory approval process, both of which could be extremely costly, and inability to monitor patients adequately before and after treatments. See also *Risk Factors* in this prospectus. The existence of any of these factors could increase our development costs or make successful completion of development impractical, which would have a material adverse affect on the prospects of our business.

#### ***Lingual Spray Propofol.***

We are currently working with NovaDel to develop, manufacture and commercialize a propofol lingual spray. We expect to file an IND toward the end of 2004, assuming no unanticipated findings are made during the balance of the formulation and toxicology studies that will precede the filing of the IND. To date, the FDA has expressed support for our objective to pursue a bioequivalence strategy for development. We are planning Phase I/II studies to occur during the first half of 2005 following IND issuance. We expect that pivotal Phase III trials will follow should bioequivalence be demonstrated, depending on the duration and outcome of the Phase I/II trials. Based upon our current estimates of the schedule for development of propofol lingual spray, and submission and approval of a marketing application, we anticipate that we may begin receiving revenues from propofol lingual spray in 2006. See "Business - Lingual Spray Propofol." Such an estimate is subject to numerous risks, however, including unforeseen delays in clinical development or in the regulatory approval process, unforeseen safety issues, and lack of effectiveness during the clinical trials. See also the risks identified under the section entitled "Risk Factors" in this prospectus.

Through March 31, 2004, we have incurred \$1,414,578 of project costs related to our development of propofol lingual spray, of which 967,989 was incurred in fiscal 2003 and \$446,589 was incurred during the first quarter of 2004. Currently, we anticipate that we will need to expend an additional \$1,500,000 to \$2,500,000 in development costs in fiscal 2004 and at least an aggregate of approximately \$3,000,000 to \$5,000,000 until we receive FDA approval for propofol, should we opt to continue development until then, including anticipated 2004 costs. As with our development of oleoyl-estrone, we believe we currently have sufficient capital to fund our development activities of propofol lingual spray during 2004 and 2005. Since our business does not generate any cash flow, however, we will need to raise additional capital to continue development of the product beyond 2005. We expect to raise such additional capital through debt financings or by selling shares of our capital stock. To the extent additional capital is not available when we need it, we may be forced to sublicense our rights to propofol lingual spray or abandon our development efforts altogether, either of which would have a material adverse effect on the prospects of our business.

#### **Critical Accounting Policies**

In December 2001, the SEC requested that all registrants discuss their most critical accounting policies in management's discussion and analysis of financial condition and results of operations. The SEC indicated that a critical accounting policy is one which is both important to the portrayal of the company's financial condition and results and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain.

### **Use of Estimates**

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

### **Research and Development Expenses**

Research and development expenses are expensed as incurred.

### **Stock-Based Compensation**

Options, warrants and stock awards issued to non-employees and consultants are recorded at their fair value as determined in accordance with Statement of Financial Accounting Standards No. 123, Accounting for Stock-Based Compensation, and EITF No. 96-18, Accounting for Equity Instruments That are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services and recognized as expense over the related vesting period.

### **Recently Issued Accounting Standards**

In June 2002, the Financial Accounting Standards Board ( FASB ) issued Statement of Financial Accounting Standards ( SFAS ) No. 146, Accounting for Costs Associated with Exit or Disposal Activities. SFAS No.146 addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies Emerging Issues Task Force ( EITF ) issue No. 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit and Activity. SFAS No. 146 requires that liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. This statement also established that fair value is the objective for initial measurement of the liability. The provisions of SFAS No. 146 are effective for exit or disposal activities that initiated after December 31, 2002. The adoption of SFAS No. 146 did not have a material impact on our consolidated financial statements.

In December 2002, the FASB issued SFAS No. 148, Accounting for Stock-Based Compensation - Transition and Disclosure - an amendment of FASB Statement No. 123. SFAS No. 148 amends SFAS No. 123, Accounting for Stock Based Compensation and provides alternative methods for accounting for a change by registrants to the fair value method of accounting for stock-based compensation. Additionally, SFAS No. 148 amends the disclosure requirements of SFAS No. 123 to require disclosure in the significant accounting policy footnote of both annual and interim financial statements of the method of accounting for stock-based compensation and the related pro-forma disclosures when the intrinsic value method continues to be used. SFAS No. 123 is effective for the first fiscal quarter beginning after December 15, 2002.

In May 2003, the FASB issued SFAS No. 150, Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity. SFAS No. 150 changes the accounting for certain financial instruments with characteristics of both liabilities and equity that, under previous pronouncements, issuers could account for as equity. The new accounting guidance contained in SFAS No. 150 requires that those instruments be classified as liabilities in the balance sheet.

SFAS No. 150 affects the issuer's accounting for three types of freestanding financial instruments. One type is mandatory redeemable shares, which the issuing company is obligated to buy back in exchange for cash or other assets. A second type included put options and forward purchase contracts, which involves instruments that do or may require the issuer to buy back some of its shares in exchange for cash or other assets. The third type of instruments that are liabilities under SFAS No. 150 are obligations that can be settled with shares, the monetary value of which is fixed, tied solely or predominantly to a variable such as market index, or varies inversely with the value of the issuer's shares. SFAS No. 150 does not apply to features embedded in a financial instrument that is not a derivative in its entirety.

Most of the provisions of SFAS No. 150 are consistent with the existing definition of liabilities in FASB Concepts Statement No. 6, Elements of Financial Statements. The remaining provisions of SFAS No. 150 are consistent with the FASB's proposal to revise that definition to encompass certain obligations that a reporting entity can or must settle by issuing its own shares. SFAS No. 150 shall be effective for financial instruments entered into or modified after May 31, 2003 and otherwise shall be effective at the beginning of the first interim period beginning after June 15, 2003.

## BUSINESS

### Overview

We are engaged in the business of developing and commercializing biomedical and pharmaceutical technologies. We aim to acquire proprietary rights to these technologies by licensing or otherwise acquiring an ownership interest, funding their research and development and eventually bringing the technologies to market. We do not have any drugs or other products available for sale, but we are currently researching and developing two biomedical technologies:

- 1 Oleoyl-estrone, an orally administered hormone attached to a fatty-acid that has been shown to cause significant weight loss in preclinical animal studies regardless of dietary modifications; and
- 1 Lingual spray propofol, a proprietary lingual spray technology to deliver propofol for pre-procedural sedation prior to diagnostic, therapeutic or endoscopic procedures.

Although we are primarily focused on developing these technologies, we continue to seek to acquire proprietary rights to other biomedical and pharmaceutical technologies, by licensing or acquiring an ownership interest, funding their research and development and bringing the technologies to market.

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

### Oleoyl-estrone

We acquired the rights to develop and commercialize oleoyl-estrone, a hormone modified by an attachment to a fatty acid, pursuant to a February 2002 license agreement with Oleoylestrone Developments, SL, a Spanish corporation. Oleoyl-estrone is an orally administered small molecule that has been shown to cause significant weight loss in preclinical animal studies regardless of dietary modifications. We believe that oleoyl-estrone causes weight loss in two ways. First, the scientific community believes that weight loss is regulated by a part of the hypothalamus, located in the brain, called the ponderostat. It is believed that the ponderostat regulates the body's weight in a manner similar to the way in which a thermostat regulates a room's temperature. Preclinical studies suggest that oleoyl-estrone resets the ponderostat, telling the body that a lower weight is normal. We believe that this signal then decreases appetite, which leads to weight loss that may be maintained even after oleoyl-estrone treatment is discontinued. Second, fat cells that have been treated with oleoyl-estrone appear to shrink in size, indicating a local effect of oleoyl-estrone acting directly on the cells. The apparent dual effect of oleoyl-estrone leads us to believe that the drug has the potential to cause weight loss in a variety of obese and overweight patients.

Oleoyl-estrone was initially developed by researchers at the University of Barcelona ( UB ) in Spain. Throughout a decade of research, scientists of the Nitrogen-Obesity Research Group at UB noted that hormones that effect metabolism play a significant role in body weight regulation. At the same time, the obesity research community suggested that weight is regulated by the ponderostat, a central mechanism in the hypothalamus of the brain believed to set the point of ideal weight. Researchers at UB believe that a hormone controls the ponderostat, raising or lowering body weight by changing the central set point for the entire body.

After examining the available work related to estrogens and changes in body weight and body fat percentage (such as during pregnancy), researchers at UB noted that the estrogen-like hormone, estrone, was elevated in the blood of both obese men and women. Initially thought to be a simple estrogen, UB researchers noticed that although estrone levels were elevated, very few obese men manifest the effects of elevated estrogen levels. Further testing revealed that oleoyl-estrone was the main form of estrone that existed in obese patients. The researchers suggested that when cells become filled with fat they produce oleoyl-estrone, signaling the brain to lose weight. They further suggested that fat cells in obese people do not produce sufficiently high levels of oleoyl-estrone to signal the ponderostat to suppress appetite and cause weight loss. Based on this concept, investigators at UB believed that they could induce weight loss by increasing levels of oleoyl-estrone in obese individuals. When oleoyl-estrone was given to rats, the rats lost weight in a dose-dependent manner, supporting the idea that oleoyl-estrone is a primary weight loss signal produced by fat cells. At the doses employed, no side effects were observed in the rats and, in female rats, uterine size remained unchanged, indicating that oleoyl-estrone did not act as an estrogen.

During the first quarter of 2003, we contracted and successfully completed reference batch manufacture of oleoyl-estrone. This enabled us to further refine the manufacturing and chemical analysis process, and to allocate a portion of this purified drug substance for formulation studies.

### **Lingual Spray Propofol**

On April 4, 2003, we entered into a License and Development Agreement (the Propofol License ) with NovaDel Pharma Inc. ( NovaDel ) for the worldwide, exclusive rights to NovaDel's proprietary lingual spray technology to deliver propofol for preprocedural sedation prior to diagnostic, therapeutic or endoscopic procedures.

Propofol is currently delivered in an oily emulsion for intravenous infusion for induction and maintenance of general anesthesia or monitored anesthesia care in operating rooms, or deep sedation in intensive care units. Sales of Midazolam, a currently prescribed sedative, were reported to be in excess of \$536 million annually in 1999. Propofol has previously not been available for dosing via a convenient route of administration for office-based and other ambulatory uses. Accordingly, we have filed a patent application for this new method of use. Other patent applications are being prepared related to our non-oily, novel formulation.

We believe that delivering propofol via this proprietary delivery system provides many advantages over currently formulated sedatives. In addition to the convenience and ease of administration, the lingual spray route will eliminate delayed onset and poor coordination of timing associated with oral sedative administration, and allow for rapid clinical responses typical of intravenous delivery (i.e. less than 5 minutes). Lingual spray propofol is intended to allow patients to tolerate unpleasant procedures by relieving anxiety and producing a pleasant, short-term amnesia. Particularly in children and adults unable to cooperate, mild sedation expedites the conduct of numerous ambulatory procedures that are not particularly painful, but which require the patient to remain still for the best technical result.

Novadel's delivery systems (both patented and patent-pending) are lingual sprays, enabling drug absorption through the oral mucosa and more rapid absorption into the bloodstream than presently available oral delivery systems. NovaDel refers to its delivery system as Immediate-Immediate Release (I2RTM) because its delivery system is designed to provide therapeutic benefits within minutes of administration. We are working with NovaDel to develop, manufacture and commercialize the licensed product, having jointly announced commencement of a development program for lingual spray propofol in June 2003. Initial formulation work has commenced and, while there can be no assurance, we anticipate filing an Investigational New Drug Application (IND) in the second half of 2004 and commencing human clinical trials shortly thereafter. Further, we intend to utilize a rapid development strategy with regard to lingual spray propofol. Section 505b2 of the U.S. Food, Drug & Cosmetic Act allows the FDA to approve a drug on the basis of existing data in the scientific literature or data used by the FDA in the approval of other drugs. Accordingly, the FDA has indicated to us that we will be able to utilize Section 505b2 to proceed directly to a pivotal Phase III trial for lingual spray propofol following completion of our planned Phase I trials. Based upon such a rapid development strategy, we anticipate competing Phase III trials in 2006.

## Market and Competition

According to estimates, the market for prescription anti-obesity drugs is approximately \$10 billion, or equal to that of diabetes. It is estimated that 61 percent of Americans are overweight and that 26 percent are obese. According to the National Institute of Health's estimate, direct costs for the treatment of obesity in 1988 were in excess of \$45 billion and accounted for nearly 8 percent of the total national cost of health care in the United States. By 1999, direct costs for the treatment of obesity had reached \$102.2 billion dollars. Meridia® and Xenical®, two currently approved anti-obesity medications, together accounted for approximately \$800 million in sales in 2001. We believe that the disease currently lacks a treatment that is safe and effective for most patient groups, and that oleoyl-estrone has the potential to meet the needs of this market.

To date, Midazolam (now a generic), which is delivered both intravenously and orally, has dominated the preprocedural sedation market, posting sales of \$536 million in 1999. However, serious adverse events are reported in midazolam's package insert, including respiratory depression, airway obstruction, oxygen desaturation, apnea and even respiratory arrest. In contrast, at the doses being developed by us, we believe that Propofol Lingual Spray may offer a safer, noninvasively administered alternative to midazolam. Propofol's rapid onset profile will allow clinicians to more accurately time its peak effects during procedures, as well as to determine the precise concentration needed for desired levels of sedation.

Competition in the pharmaceutical industry, and the anti-obesity drug market in particular, is intensely competitive. In addition to Abbott Laboratories, Inc. and Roche Holdings AG, the makers of Meridia® and Xenical®, respectively, some of the largest drug companies in the world have anti-obesity drugs currently in development, including GlaxoSmithKline PLC, Johnson & Johnson, Inc., Bristol-Myers Squibb Company, Regeneron Pharmaceutical, Inc., Phytopharm, PLC, Amgen, Inc. These companies are all substantially larger and more established than we are and have significantly greater financial and other resources than we do.

## Intellectual Property and License Agreements

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

We also depend upon the skills, knowledge and experience of our scientific and technical personnel, as well as that of our advisors, consultants and other contractors, none of which is patentable. To help protect our proprietary know-how which is not patentable, and for inventions for which patents may be difficult to enforce, we rely on trade secret protection and confidentiality agreements to protect our interests. To this end, we require all employees, consultants, advisors and other contractors to enter into confidentiality agreements which prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business.

***Oleoyl-estrone License Agreement***

We currently have worldwide, exclusive license rights to the U.S. and foreign patents and patent applications regarding oleoyl-estrone and its use for the treatment of human diseases:

1. US Patent No. 5,798,348 entitled "Fatty-acid monesters of estrogens for the treatment of obesity and/or overweight." M. Alemany, Inventor. Application filed, October 30, 1996. Patent issued August 25, 1998. This patent expires on October 30, 2016.
2. European Patent No. 771.817 entitled "Oleate monoesters of estrogens for the treatment of obesity and/or overweight." M. Alemany, Inventor. Application filed, October 28, 1996. Patent issued March 26, 2003. This patent expires on October 28, 2016.
3. Spanish Patent Application No. ES 200100785 entitled "Fatty-acid monoesters of estrogens acting as anti-diabetic and hypolipidemia agents." M. Alemany Lamana, Francisco Javier Remesar Betiloch, and Jose Antonio Fernandez Lopez, Inventors. Application filed March 28, 2001, European Patent Application No. EP1380300A1, filed March 25, 2002, and Canadian Patent Application No. 2441890, filed March 25, 2002.

The U.S. and European issued patents have numerous, detailed, and specific claims for both the composition of oleoyl-estrone, and its method of use for weight loss. Our rights to these patents are subject to the terms of a February 2002 license agreement between us and Oleoyl-estrone Developments. The license agreement provides us with an exclusive, worldwide right to the intellectual property covered by the license agreement, including the right to grant sublicenses. Our success in developing oleoyl-estrone depends on our ability to maintain and enforce the patents relating to oleoyl-estrone.

In consideration for the license, we paid an initial license fee of \$175,000. The license agreement provides for further cash payments of \$9,250,000 in the aggregate, payable as follows: \$250,000 payable upon treatment of the first patient in a Phase I clinical trial under an IND sponsored by us; \$250,000 upon treatment of the first patient in a Phase II clinical trial; \$750,000 upon the first successful completion of a Phase II clinical trial; \$2,000,000 upon the first successful completion of a Phase III clinical trial; and \$6,000,000 upon the first final approval of a New Drug Application ( NDA ) for oleoyl-estrone by the FDA. The license agreement does not require us to make any royalty payments.

Subject to earlier termination as described below, the term of the license expires on the last to expire patent right licensed under the agreement, which is currently October 2016. Oleoyl-estrone Developments has the right to terminate the license agreement sooner, subject to certain requirements to provide us advance notice, in the event we become bankrupt or similar proceedings are initiated, fail to make the required milestone payments required under the agreement or otherwise materially breach the license agreement. We have the right to terminate the license agreement for any reason upon written notice.

***Propofol License Agreement***

Pursuant to the NovaDel license agreement, we have an exclusive, worldwide license to NovaDel's proprietary lingual spray technology to deliver propofol for preprocedural sedation prior to diagnostic, therapeutic or endoscopic procedures. Our rights under the NovaDel License include license rights to the following patents and patent applications held by NovaDel:

1. U.S. Patent No. 5,955,098, entitled "Buccal Non Polar Spray or Capsule." H.A. Dugger, III, Inventor. Application filed April 12, 1996. Patent issued September 21, 1999. This patent expires April 12, 2016.
2. U.S. Patent No. 6,110,486, entitled "Buccal Polar Spray or Capsule." H.A. Dugger, III, Inventor. Application filed November 25, 1998. Patent issued August 29, 2000. This patent expires April 12, 2016.
3. European Patent No. 0904055 entitled "Buccal, Non-Polar Spray or Capsule." H.A. Dugger, III, Inventor. Application filed, February 21, 1997. Patent issued April 16, 2003. This patent expires February 21, 2017.
4. U.S. Patent Application No. 10/834815 entitled "Buccal, Polar and Non-Polar Sprays Containing Propofol." H.A. Dugger and M.A. El-Shafy, Inventors. Application filed April 27, 2004.

These issued patents have numerous, detailed, and specific claims relating to the formulation for lingual spray applications and their method of use. We have the right to use the technology in connection with one application delivering propofol. Our success in developing lingual spray propofol depends substantially on the maintenance and enforcement of NovaDel's patents covering its proprietary spray technology.

In consideration for our rights under the NovaDel license agreement, we paid NovaDel an initial license fee of \$500,000 upon the completion of our \$10 million private placement of Series A Convertible Preferred Stock in November 2003. In addition, the license agreement requires us to make certain milestone payments as follows: \$1,000,000 payable following the date that the first IND for lingual spray propofol is accepted for review by the FDA; \$1,000,000 following the date that the first European Marketing Application is accepted for review by any European Union country; \$2,000,000 following the date when the first filed NDA for lingual spray propofol is approved by the FDA; \$2,000,000 following the date when the first filed European Marketing Application for lingual spray propofol is approved by a European Union country; \$1,000,000 following the date on which an application for commercial approval of lingual spray propofol is approved by the appropriate regulatory authority in each of Australia, Canada, Japan and South Africa; and \$50,000 following the date on which an application for commercial approval for lingual spray propofol is approved in any other country (other than the U.S. or a member of the European Union). In addition, we are obligated to pay NovaDel an annual royalty based on a fixed rate of net sales of licensed products, or if greater, the annual royalty is based on our net profits from the sale of licensed products at a rate that is twice the net sales rate.

Subject to certain requirements to provide us with notice and an opportunity to cure, NovaDel may terminate the license agreement in the event we (1) become subject to a bankruptcy or similar proceeding that is not dismissed within 60 days, (2) default in our obligation to make a required payment under the license agreement, or (3) otherwise materially breach the license agreement. The license agreement also provided that NovaDel could terminate the license agreement in the event we did not raise \$5 million in financing on or before March 31, 2004; however, we satisfied that condition in November 2003 in connection with the \$10 million private placement of our Series A Convertible Preferred Stock. We may terminate the license agreement for any reason upon 90 days' notice to NovaDel.

### **Manufacturing**

We do not have any manufacturing capabilities. We have been in contact with several contract Good Manufacturing Process, or GMP, manufacturers for the supply of both oleoyl-estrone and lingual spray propofol that will be necessary to conduct Phase I human clinical trials. A method has been identified for synthesizing oleoyl-estrone, and can be done through simple reactions that produce the substance at above 99 percent purity. We believe that the production of oleoyl-estrone will involve one contract manufacturer for clinical trials. Bids are being received from multiple providers, so that provider redundancy can be maintained during product launch.



### **Government Regulation**

Regulation by government authorities in the United States and foreign countries is a significant factor in the research, development, manufacture, and marketing of oleoyl-estrone and lingual spray propofol. Oleoyl-estrone and any future product candidate will require regulatory approval before they can be commercialized. In particular, human therapeutic products are subject to rigorous preclinical and clinical trials and other premarket approval requirements by the FDA and foreign authorities. Many aspects of the structure and substance of the FDA and foreign pharmaceutical regulatory practices have been reformed during recent years, and continued reform is under consideration in a number of forums. The ultimate outcome and impact of such reforms and potential reforms cannot be reasonably predicted.

Clinical trials are conducted in accordance with certain standards under protocols that detail the objectives of the study, the parameters to be used to monitor safety, and the efficacy criteria to be evaluated. Each protocol must be submitted to the FDA. The phases of clinical studies may overlap. The designation of a clinical trial as being of a particular phase is not necessarily indicative that such a trial will be sufficient to satisfy the parameters of a particular phase, and a clinical trial may contain elements of more than one phase notwithstanding the designation of the trial as being of a particular phase. We cannot assure you that the results of preclinical studies or early stage clinical trials will predict long-term safety or efficacy of our compounds when they are tested or used more broadly in humans. Various federal and state statutes and regulations also govern or influence the research, manufacture, safety, labeling, storage, record keeping, marketing, transport, or other aspects of such products. The lengthy process of seeking these approvals and the compliance with applicable statutes and regulations require the expenditure of substantial resources. Any failure by us or our any future collaborators or licensees to obtain, or any delay in obtaining, regulatory approvals could adversely affect the marketing of our product candidates and any other products and our ability to receive product or royalty revenue.

### **Employees**

We currently have 4 employees: a president & chief executive officer, a chief financial officer & chief operating officer, a manager of clinical development and an administrative assistant.

### **Properties**

Our executive offices are located at 787 Seventh Avenue, 48th Floor, New York, New York 10019. We currently occupy this space pursuant to an oral understanding under which we pay rent of approximately \$6,400 per month to Paramount BioCapital, Inc. until we can find suitable space elsewhere in New York City.

We believe we need to obtain additional office space in the near future and are currently exploring alternative office space arrangements in the Midtown Manhattan area. We do not own any real property.

### **Legal Matters**

We are not a party to any material litigation and are not aware of any threatened litigation that would have a material adverse effect on our business.

## MANAGEMENT

## Directors and Executive Officers

Name	Age	Position
Leonard Firestone, M.D.	52	President and Chief Executive Officer and Director
Nicholas J. Rossettos	38	Chief Financial Officer, Chief Operating Officer and Secretary
Joshua Kazam	27	Director
Michael Weiser, M.D., Ph.D.	41	Director
Joan Pons Gimbert	54	Director
David M. Tanen	32	Director

**Leonard Firestone, M.D.**, has been President, Chief Executive Officer and a director of our company since completion of the merger transaction with Manhattan Research Development in February 2003. Prior to the merger, Dr. Firestone served as president and chief executive officer of Manhattan Research Development since January 2003. From 2001 until he joined Manhattan Research Development, Dr. Firestone served as chief executive officer, director, and chief medical officer of Innovative Drug Delivery Systems, Inc., a privately-held, specialty pharmaceutical development company focused on pain relievers. Dr. Firestone previously was chief executive officer and chairman of University Anesthesiology and Critical Care Medicine Foundation, Inc., one of America's largest clinical practice management companies, from 1996 to 2001, as well as Chair of that Foundation's Pension Trustees from 1996 to 2001. He was awarded the endowed, University Professorship in his specialty at the University of Pittsburgh, and also held faculty appointments at Harvard Medical School (Massachusetts General Hospital), and Yale School of Medicine. Dr. Firestone received an M.D. from Yale University, where he also was a resident and clinical Fellow, and remains certified by his specialty Board. Dr. Firestone is a trained pharmacologist as well as clinician, having served as a National Institutes of Health (NIH) Postdoctoral Fellow at Harvard University, and has held prestigious NIH Principal Investigatorships consecutively from 1985 2001 and been a member of numerous NIH review committees and panels.

**Nicholas J. Rossettos** has been our Chief Financial Officer and Treasurer since April 2000 and our Chief Operating Officer since February 2003. From February 1999 until joining our company, Mr. Rossettos was Manager of Finance for Centerwatch, a pharmaceutical trade publisher headquartered in Boston, Massachusetts, that is a wholly owned subsidiary of Thomson Corporation of Toronto, Canada. Prior to that, from 1994, he was Director of Finance and Administration for EnviroBusiness, Inc., an environmental and technical management consulting firm headquartered in Cambridge, Massachusetts. Mr. Rossettos is a certified public accountant and holds an M.S. in Accounting and M.B.A. from Northeastern University.

**Joshua Kazam** has been a director of our company since the completion of our merger transaction with Manhattan Research Development, Inc. in February 2003. He served as a director of Manhattan Research Development since December 2001. Since 2001, Mr. Kazam has been the Director of Investment for the Orion Biomedical Fund, a New York based private equity fund focused on biotechnology investments. Mr. Kazam holds a Bachelor's degree from the Wharton School of the University of Pennsylvania.

**Michael Weiser, M.D., Ph.D.**, has been a director of our company since the completion of our merger transaction with Manhattan Research Development, Inc. in February 2003. He served as a director of Manhattan Research Development since December 2001 and as its Chief Medical Officer from its inception until August 2001. Dr. Weiser is currently also the Director of Research of Paramount BioCapital Asset Management. Dr. Weiser is also a member of Orion Biomedical GP, LLC, and serves on the board of directors of several privately held companies. Dr. Weiser also serves as a director of Chiral Quest, Inc. (OTCBB: CQST) since February 2003. Dr. Weiser received an M.D. from New York University School of Medicine and a Ph.D. in Molecular Neurobiology from Cornell University Medical College. Dr. Weiser completed a Postdoctoral Fellowship in the Department of Physiology and Neuroscience at New York University School of Medicine and performed his post-graduate medical training in the Department of Obstetrics and Gynecology and Primary Care at New York University Medical Center.

**Joan Pons Gimbert** has been a director of our company since February 21, 2003, the date of our merger with Manhattan Research Development. Prior to the merger, he served as a director of Manhattan Research Development from 2002. Since 2002, Mr. Pons has served chief executive officer of Oleoyl-Estrone Developments S.L., a spin-off of the University of Barcelona. Pursuant to a January 2002 license agreement, we hold an exclusive worldwide license to several patents and patent applications relating to oleoyl-estrone, which are owned by Oleoyl-Estrone Developments. From 1999 until joining Oleoyl-Estrone Developments, Mr. Pons has served as Director of Franchising of Pans & Company, a fast-food company. From 1972 until 1999, Mr. Pons was employed in various finance and sales capacities by Gallina Blanca Purina S.A., a joint venture between St. Louis, Missouri based Ralston Purina Co. and Spanish based Agrolimen S.A., most recently serving as its National Sales & Marketing Director.

**David M. Tanen** has been a director of our company since January 2002. Since 1996, Mr. Tanen has served as an associate director of Paramount Capital, where he has been involved in the founding of a number of biotechnology start-up companies. Since February 2003, Mr. Tanen has also served as a director of Chiral Quest, Inc. (OTC: CQST) and he also serves as an officer or director of several other privately held development-stage biotechnology companies. Mr. Tanen holds a law degree from Fordham University School of Law.

There are no family relationships among our executive officers or directors.

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**Compensation of Executive Officers**

The following table sets forth, for the last three fiscal years, the compensation earned for services rendered in all capacities by our chief executive officer and the other highest-paid executive officers serving as such at the end of 2003 whose compensation for that fiscal year was in excess of \$100,000. The individuals named in the table will be hereinafter referred to as the Named Officers. No other executive officer of Manhattan received compensation in excess of \$100,000 during fiscal year 2003.

Summary Compensation Table

Name and Principal Position	Year	Annual Compensation			Long-Term Compensation Awards	All Other Compensation (\$)
		Salary(\$)	Bonus(\$)	Other Annual Compensation (\$)	Securities Underlying Options/SARs(#)	
Leonard Firestone <sup>(1)</sup>	2003	250,000	200,000	0	584,060	0
Chief Executive Officer and President	2002	--	--	--	--	--
	2001	--	--	--	--	--
Nicholas J. Rossettos	2003	142,788	25,000	22,397 <sup>(2)</sup>	292,030	
Chief Operating Officer, Chief Financial Officer, Treasurer & Secretary	2002	107,645	25,000	10,000 <sup>(3)</sup>	55,000	0
	2001	125,000	25,000	10,000 <sup>(3)</sup>	10,000	0

(1) Dr. Firestone became chief executive officer of Manhattan Research Development, Inc. in January 2003 and, following the merger with Atlantic Technology Ventures, Inc. on February 21, 2003, he was appointed chief executive officer of our company. The above table reflects Dr. Firestone's combined compensation received from Manhattan Research Development and our company during fiscal 2003.

(2) Represents salary deferred from the prior fiscal year and prior to February 24, 2003.

(3) Represents matching contributions by us pursuant to our company's SAR-SEP retirement plan.

**Options and Stock Appreciation Rights**

The following table contains information concerning the grant of stock options under our stock option plans and otherwise to the executive officers identified below during the 2003 fiscal year. No stock appreciation rights were granted in 2003.

Option Grants in Last Fiscal Year (Individual Grants)

Name	Number of Securities Underlying Options Granted	Percent of Total Options Granted to Employees in Fiscal Year	Exercise or Base Price (\$/Share) <sup>(1)</sup>	Expiration Date
Dr. Firestone	584,600	67	0.40	2/24/2013
Mr. Rossettos	292,030 <sup>(2)</sup>	33	0.40	2/24/2013

(1) Exercise price is based on the closing sale price of our common stock on the last trading day preceding the grant date.

(2) Option vests 50 percent on February 24, 2004 and 50 percent on February 24, 2005.

**Option Exercise and Holdings**

The following table provides information with respect to the executive officers named below concerning the exercisability of options during the 2003 fiscal year and unexercisable options held as of the end of the 2003 fiscal year. No stock appreciation rights were exercised during the 2003 fiscal year, and no stock appreciation rights were outstanding at the end of that fiscal year.

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

Name	Shares		Exercisable	Unexercisable	Exercisable	Unexercisable
	Acquired on Exercise	Value Realized <sup>(1)</sup>				
Dr. Firestone	0	--	584,600	0	689,828	0
Mr. Rossettos	0	--	208,515	158,515	192,573	176,423

(1) Equal to the fair market value of the purchased shares at the time of the option exercise over the exercise price paid for those shares.

(2) Based on the fair market value of our common stock on December 31, 2003 of \$1.58 per share, the closing sales price per share on that date on the OTC Bulletin Board.

**Long Term Incentive Plan Awards**

No long term incentive plan awards were made to any of our executive officers during the last fiscal year.

**Compensation of Directors**

Non-employee directors are eligible to participate in an automatic stock option grant program pursuant to the 2003 stock option plan.

Non-employee directors are granted an option for 50,000 shares of common stock upon their initial election or appointment to the board and an option for 25,000 shares of common stock annually thereafter. During 2003 our board members did not receive any cash compensation for their services as directors, although directors are reimbursed for reasonable expenses incurred in connection with attending meetings of the board and of committees of the board.

## **Employment Agreements**

### ***Leonard Firestone, M.D.***

Dr. Firestone's employment with us is governed by an employment agreement dated January 2, 2004. Under the terms of his employment agreement, Dr. Firestone is entitled to a base salary of \$325,000 per year and a guaranteed bonus of \$75,000 payable on each anniversary of the employment agreement so long as Dr. Firestone remains employed by us, and up to an additional \$200,000 upon the achievement of certain performance related milestones. In addition, Dr. Firestone is eligible to receive a discretionary bonus in an amount up to his base salary, as determined by the board of directors in its discretion. We also agreed to grant to Dr. Firestone options to purchase an additional 600,000 shares of our common stock under our 2003 Stock Option Plan, which option will vest in its entirety on the first anniversary of his employment agreement. The employment agreement provides for a 1-year term, which may be extended by the parties for additional 1-year periods.

In the event we terminate Dr. Firestone's employment upon a "change of control" (as defined in the employment agreement) or for a reason other than for cause or as a result of disability, we are required to continue to pay to Dr. Firestone his base salary for a period of one year from the termination date, provided that our obligation to continue paying his base salary will be reduced by amounts Dr. Firestone earns from other employment during the 1-year period.

### ***Nicholas J. Rossettos***

Mr. Rossettos' employment with us is pursuant to a February 2003 employment agreement. This agreement has a two-year term ending on February 21, 2005, which may be extended for additional one (1) year periods thereafter. Under the agreement, Mr. Rossettos is entitled to an annual salary of \$150,000 in addition to health, disability insurance and other benefits. Pursuant to his employment agreement, on February 24, 2003, Mr. Rossettos was granted an option to purchase an aggregate of 292,030 shares of common stock at a price of \$0.40 per share. The option vests in two equal installments on each of February 24, 2004 and February 24, 2005. Mr. Rossettos and his dependents are eligible to receive paid medical and long term disability insurance and such other health benefits as we make available to other senior officers and directors. Mr. Rossettos reports to the Chief Executive Officer and President.

In the event we terminate Mr. Rossettos' employment upon a "change of control" (as defined in the employment agreement), we have agreed to continue paying his base salary for a period of six months. In the event we terminate Mr. Rossettos' employment other than upon a change of control or for a reason other than cause or as a result of a disability, we are required to continue paying his base salary until the first anniversary of the termination or the remaining term of the employment agreement, which ever is less, provided that our obligation will be reduced by amounts earned by Mr. Rossettos from other employment during such period.

### ***Joshua Kazam***

Mr. Kazam provides services to our company pursuant to a consulting agreement dated March 1, 2003. The consulting agreement provides that Mr. Kazam will render services to us in connection with corporate financing activities and preparation of grant applications that we may from time to time need. We are required to pay to Mr. Kazam \$4,167 per month during the term of the consulting agreement. The consulting agreement provides for a term of one year, which may be extended for 30 day periods thereafter. The consulting agreement provided for an initial one year term and is now operating on a month to month basis. Either we or Mr. Kazam may terminate the agreement upon 30 days notice.

### ***Michael Weiser, M.D., Ph.D.***

Dr. Weiser provides services to our company pursuant to a consulting agreement dated March 1, 2003. The consulting agreement provides that Dr. Weiser will provide scientific advisory services to us in the areas of obesity and drug delivery. We are required to pay to Dr. Weiser \$6,250 per month during the term of the consulting agreement. The consulting agreement provides for a term of one year, which may be extended for 30 day periods thereafter. The consulting agreement provided for an initial one year term and is now operating on a month to month basis. Either we or Dr. Weiser may terminate the agreement upon 30 days notice.

**SECURITY OWNERSHIP OF  
CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth certain information regarding beneficial ownership of the our common stock as of July 9, 2004, by (i) each person known by us to be the beneficial owner of more than 5 percent of the outstanding common stock, (ii) each director, (iii) each executive officer, and (iv) all executive officers and directors as a group. The number of shares beneficially owned is determined under rules promulgated by the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under those rules, beneficial ownership includes any shares as to which the individual has sole or shared voting power or investment power and also any shares which the individual has the right to acquire within 60 days of the date hereof, through the exercise or conversion of any stock option, convertible security, warrant or other right. Including those shares in the tables does not, however, constitute an admission that the named stockholder is a direct or indirect beneficial owner of those shares. Unless otherwise indicated, each person or entity named in the table has sole voting power and investment power (or shares that power with that person's spouse) with respect to all shares of capital stock listed as owned by that person or entity. Unless otherwise indicated, the address of each of the following persons is 787 Seventh Avenue, 48th Floor, New York, New York 10019.

Name	Shares Beneficially Owned	Percent of Class
Leonard Firestone(1)	584,060	2.1
Nicholas J. Rossettos(2)	258,650	*
Joshua Kazam(3)	329,198	1.2
Michael Weiser(3)	1,485,216	5.5
Joan Pons Gimbert(4)	3,982,037	14.9
David M. Tanen(5)	405,980	1.5
All directors and officers as a group(6)	7,045,141	25.3
Lindsay A. Rosenwald(7)	2,957,261	10.8
Oleoylstrone Developments, SL(8) Josep Samitier 1-5, Barcelona Science Park 08028 Barcelona Spain	3,957,037	14.8
Jay Lobell(9) 365 West End Avenue New York, NY 10024	4,078,890	15.1
Atlas Fund, LLC (10) 181 West Madison, Suite 3600 Chicago, IL 60602	1,818,182	6.8

\* Less than 1.0%

- (1) Includes 584,060 shares issuable upon the exercise (at a price of \$0.40 per share) of a vested option.
- (2) Includes shares issuable upon the exercise of options that are currently exercisable or will be exercisable within 60 days: (i) 10,000 shares issuable at an exercise price of \$20.94 per share; (ii) 10,000 shares issuable at an exercise price of \$4.375 per share; (iii) 17,500 shares issuable at an exercise price of \$1.25 per share; (iv) 25,000 shares issuable at an exercise price of \$1.00 per share; (v) 146,150 shares issuable at an exercise price of \$0.40 per share; and (vi) 50,000 shares issuable at an exercise price of \$1.65 per share.
- (3) Includes 25,000 shares issuable upon the exercise (at a price of \$1.65 per share) of an option.



- (4) Includes 3,957,037 shares held by Oleoylestrone Developments, SL, of which Mr. Pons is chief executive officer, and 25,000 shares issuable upon the exercise (at a price of \$1.65 per share) of an option. Mr. Pons has investment and voting power over the shares held by Oleoylestrone Developments, SL.
- (5) Includes shares issuable upon the exercise of options that are currently exercisable, or will be exercisable within 60 days: (i) 12,000 shares issuable at an exercise price of \$1.25 per share; (ii) 400 shares issuable at an exercise price of \$0.40 per share; and (iii) 25,000 shares issuable at an exercise price of \$1.65 per share.
- (6) Includes 955,110 shares issuance upon exercise of options and warrants.
- (7) Includes 220,855 shares of common stock issuable upon conversion of 24,294 shares of Series A Convertible Preferred Stock held by Dr. Rosenwald, and 516,885 shares issuable upon the exercise of warrants. Dr. Rosenwald is also the Chairman of BioParamount Capital, Inc. Dr. Weiser and Messrs. Kazam and Tanen are employed by BioParamount Capital, Inc. or one of its affiliates.
- (8) Mr. Pons is the chief executive officer of Oleoylestrone Developments, SL and has investment and voting power over the shares held by that company.
- (9) Includes 88,345 shares of common stock issuable upon conversion of 9,718 shares of Series A Convertible Preferred Stock held by Mr. Lobell. Also includes 3,788,441 shares of common stock held by eight separate trusts with respect to which Mr. Lobell is either trustee or manager and in either case has investment and voting power, including 220,855 shares of common stock issuable upon conversion of 24,294 shares of Series A Convertible Preferred Stock.
- (10) Based on a Schedule 13G filed January 20, 2004. According to the Schedule 13G, Mr. Dmitry Balyasny owns 65% of the outstanding equity of Balyasny Asset Management, LLC, which owns 100% of Atlas Fund, LLC, and has the sole investment and voting power with respect to the shares.

#### **CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

##### **Oleoylestrone Developments, SL**

Pursuant to the terms of a license agreement dated February 15, 2002 by and between Manhattan Research Development, Inc., our wholly owned subsidiary, and Oleoylestrone Developments, SL, we have an exclusive, worldwide license to U.S. and foreign patents and patent applications relating to certain technologies. Although we are not obligated to pay royalties to Oleoylestrone Developments, the license agreement requires us to make certain performance-based milestone payments. See Business Intellectual Property. As a result of our acquisition of Manhattan Research Development in February 2003, Oleoylestrone Developments owns approximately 16 percent of our outstanding common stock. Additionally, Mr. Pons, a member of our board of directors, is chief executive officer of Oleoylestrone Developments. We believe that our agreement with Oleoylestrone Developments was made on terms no less favorable to us than could have been obtained from unaffiliated third parties.

##### **Paramount BioCapital, Inc.**

Three members of our board of directors, Joshua Kazam, David Tanen and Michael Weiser, are also employees of Paramount BioCapital, Inc. or one of its affiliates. The sole shareholder of Paramount BioCapital, Inc. is Lindsay A. Rosenwald, M.D. Dr. Rosenwald beneficially owns approximately 11 percent of our common stock. In November 2003, we paid to Paramount BioCapital approximately \$460,000 as commissions earned in consideration for placement agent services rendered in connection with the private placement of our Series A Convertible Preferred Stock, which amount represented 7 percent of the shares sold by Paramount BioCapital in the offering. In addition, in January 2004, we paid approximately \$260,000 as commissions earned in consideration for placement agent services rendered by Paramount BioCapital in connection with a private placement of our common stock, which amount represented 7 percent of the shares sold by Paramount BioCapital in the private placement. In connection with both private placements and as a result of their employment with Paramount BioCapital, Mr. Kazam and Dr. Weiser were allocated 5-year placement agent warrants to purchase 60,174 and 103,655 shares of our common stock, respectively, at a price of \$1.10 per share. We believe our engagements of Paramount BioCapital were made on terms no less favorable to us than could have been obtained from unaffiliated third parties.



In addition, Dr. Weiser and Mr. Kazam each provide consulting services to us pursuant in exchange for monthly compensation of \$6,250 and \$4,167, respectively. See Management Employment Agreements.

**NovaDel Pharma Inc.**

As discussed above, pursuant to the terms of a license agreement dated April 4, 2003 by and between us and NovaDel Pharma Inc., we have the rights to develop NovaDel's proprietary lingual spray technology to deliver propofol for preprocedural sedation. The license agreement with NovaDel requires us to make certain license and milestone payments, as well as pay royalties. See Business Lingual Spray Propofol. During 2003, we paid aggregate license fees of \$500,000 to NovaDel under the license agreement. Dr. Rosenwald, who beneficially owns approximately 11 percent of our common stock, also beneficially owns in excess of 20 percent of the common stock of NovaDel and may therefore be deemed to be an affiliate of that company. We believe our license agreement with NovaDel was made on terms no less favorable to us than could have been obtained from unaffiliated third parties.

**MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS****Market for Common Stock**

Our common stock trades on the OTC Bulletin Board under the symbol MHTT.OB. The following table lists the high and low price for our common stock (as adjusted for our 1-for-5 stock combination effected on September 25, 2003) as quoted on the OTC Bulletin Board during each quarter within the last two fiscal years, plus the first two quarters of fiscal 2004:

Quarter Ended	Price Range	
	High	Low
March 31, 2002	\$ 1.50	\$ 0.80
June 30, 2002	1.70	0.60
September 30, 2002	0.95	0.50
December 31, 2002	0.85	0.25
March 31, 2003	\$ 0.85	\$ 0.25
June 30, 2003	1.65	0.60
September 30, 2003	2.50	1.10
December 31, 2003	2.00	1.20
March 31, 2004	\$ 2.00	\$ 1.35
June 30, 2004	2.48	1.27

The quotations from the OTC Bulletin Board reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not represent actual transactions.

**Record Holders**

The number of holders of record of our common stock as of July 8, 2004 was 370. The number of record holders of our Series A Convertible Preferred Stock was 154 as of July 8, 2004.

**Dividends**

We have not paid or declared any dividends on our common stock and we do not anticipate paying dividends on our common stock for the foreseeable future.

**USE OF PROCEEDS**

We will not receive any proceeds from the resale of any of the shares offered by this prospectus by the selling stockholders.

## SELLING STOCKHOLDERS

The following table sets forth the number of shares of the common stock owned by the selling stockholders as of July 9, 2004, and after giving effect to this offering.

Name	Shares beneficially owned before offering(1)	Number of outstanding shares offered by selling stockholder	Number of shares offered by selling stockholder issuable upon conversion of Series A stock <sup>(1)</sup>	Number of shares offered by selling stockholder issuable upon exercise of warrants	Percentage beneficial ownership after offering
<b>Shares issued in connection with January 2004 private placement</b>					
Atlas Fund, LLC	1,818,181	1,818,181	0	0	--
MHR Capital Partners, L.P.	1,323,186	764,988	0	0	--
Jacob Gottlieb	2,045,453 <sup>(2)</sup>	227,272	0	0	--
Mark Rechesky	454,546	454,546	0	0	--
Hillel Goldstein	14,546	14,546	0	0	--
Sai Devabhaktuni	45,455	45,455	0	0	--
Mark Rosenberg	9,091	9,090	0	0	--
Emily Fine	18,182	18,181	0	0	--
Tariq Fancy	2,728	2,728	0	0	--
Luciano M. Murelli	13,650	13,650	0	0	--
Paramount Capital, Inc.	925,576	0	0	326,499	--
<b>Subtotal:</b>		3,368,637		326,499	
<b>Shares issued in connection with Series A Preferred Stock private placement</b>					
Allied Diesel Service, Inc. Employee Profit Sharing Plan	24,290	0	24,290	0	--
Alfonse M. D'Amato Defined Benefit Plan	97,180	0	97,180	0	--
Andrew Grossman D/C Profit Sharing Plan	25,887	0	24,290	0	*
Anthony Argyrides	26,498	0	24,290	2,208	--
Anthony Polak "S"	181,670 <sup>(3)</sup>	0	24,290	0	*
Anthony Polak IRA	181,670 <sup>(3)</sup>	0	24,290	0	*
Artero Inc.	132,500	0	58,310	0	*
Artero Profit Sharing Plan	27,900	0	24,290	0	*
Asher Family Trust					