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As filed with the Securities and Exchange Commission on December 22, 2004

Registration No. 0333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM SB-2

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

MEDICAL DISCOVERIES, INC.

(Exact Name of Small Business Issuer in its Charter)

Utah	**2834**	**87-0407858**
(State or Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

1338 S. Foothill Drive, #266
Salt Lake City, Utah 84108
Telephone: (801) 582-9583

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

Judy M. Robinett
President and Chief Executive Officer
Medical Discoveries, Inc.
1338 S. Foothill Drive, #266
Salt Lake City, Utah 84108
Telephone: (801) 582-9583

Copies to:

Stephen R. Drake, Esq.
Stoel Rives LLP
101 S. Capitol Boulevard, Suite 1900
Boise, ID 83702-7705
Telephone (208) 389-9000
Fax (208) 389-9040

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.

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 any of the securities being registered on this form are to be offered on a delayed or continuing basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Unit	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Shares of restricted Common Stock	350,000(1)	$ .21	$ 73,500	$ 8.65
Shares of Common Stock issuable upon conversion of Series A Convertible Preferred Stock	84,000,000(1)(2)	$ .21	$17,640,000	$2,076.23
Shares of Common Stock issuable upon exercise of Warrants	29,161,158(1)(3)	$ .1967	$ 5,736,000	$ 675.13
				$2,760.01

(1) In addition, pursuant to Rule 416 of the Securities Act, this Registration Statement covers a presently indeterminate number of shares of common stock issuable upon the occurrence of a stock split, stock dividend or other similar transaction.

(2) With respect to the shares of common stock issuable upon conversion of Series A Convertible Preferred Stock, pursuant to Rule 457(c), the offering price is calculated, solely for the purpose of calculating the registration fee, based upon the average of the high and low sales prices for the shares of common stock as reported on the OTC Bulletin Board on December 22, 2004.

(3) With respect to the shares of common stock issuable upon exercise of warrants that have an exercise price that exceeds the average of the high and low sales prices for the shares of common stock as reported on the OTC Bulletin Board on December 22, 2004, pursuant to Rule 457(g), the offering price is assumed, solely for the purpose of calculating the registration fee, to be equal to $0.1967, the maximum exercise price of the warrants.

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 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

SUBJECT TO COMPLETION DATED December 22, 2004

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

Medical Discoveries, Inc.

113,511,158 shares of common stock

This prospectus relates to the offering and sale of 113,511,158 shares of common stock, of which (i) 350,000 shares consists of restricted common stock, no par value, issued to Ascendiant Capital Group, LLC, (ii) 84,000,000 shares consist of common stock, no par value, issuable upon conversion of the Series A convertible preferred stock issued to Monarch Pointe Fund, Ltd., Mercator Momentum Fund, LP, Mercator Momentum Fund III, LP, and Mercator Advisory Group, LLC, and (iii) 29,161,158 shares consist of common stock, no par value, issuable upon exercise of warrants acquired by Monarch Pointe Fund, Ltd., Mercator Momentum Fund, LP, Mercator Momentum Fund III, LP, Mercator Advisory Group, LLC and Ascendiant Securities, LLC. All of the offered shares are to be sold by persons who are existing security holders and identified in the section of the prospectus entitled "Selling Stockholders." In addition, pursuant to Rule 416 of the Securities Act, as amended, this prospectus, and the registration statement of which it is a part, covers a presently indeterminate number of shares of common stock issuable upon the occurrence of a stock split, stock dividend, or other similar transaction.

We will not receive any of the proceeds from the sale of the shares offered hereunder. Our common stock is traded on the NASD OTC Bulletin Board under the symbol "MLSC." On December 22, 2004, the closing sales price of our common stock, as reported by the OTC Bulletin Board, was $0.21 per share.

Our principal office is located at Medical Discoveries, Inc. 1338 S. Foothill Drive, #266, Salt Lake City, Utah 84108, and our telephone number is (801) 582-9583.

Consider carefully the risk factors beginning on page 2 in this prospectus before investing in the offered shares being sold with this prospectus.

This prospectus shall not constitute an offer to sell, or the solicitation of an offer to buy, in any state in which such offer or sale would be unlawful before or absent qualification under the securities laws of such state.

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

Dated December 22, 2004

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ABOUT THIS PROSPECTUS

This prospectus provides you with a description of our company, certain risk factors associated with investment in our common shares, a description of the contemplated offering and certain financial information. In addition, you should read the additional information described under the heading "*Incorporation of Certain Documents by Reference*" on page 50 of this prospectus.

PROSPECTUS SUMMARY

The following is a summary that highlights what we believe to be the most important information regarding Medical Discoveries, Inc. and the securities being offered herein. Because it is a summary, however, it may not contain all of the information that is important to you. To understand our business and this offering fully, you should read carefully this entire prospectus, including our financial statements and related notes and the risks of investing in our common stock discussed under "Risk Factors."

Our Company

Medical Discoveries, Inc. was incorporated on November 20, 1991 as a Utah corporation and maintains its principal offices at 1338 S. Foothill Drive, #266, Salt Lake City, Utah 84108. Our telephone number is (801) 582-9583. We are a development-stage bio-pharmaceutical company engaged in the research, validation, development and ultimate commercialization of a patented anti-infective technology. Our electrolyzed solution of free radicals represents a novel approach to treating our initial target indications, Cystic Fibrosis and HIV.

Our product, called MDI-P, appears to have the ability to destroy certain viruses, bacteria and fungi without any associated toxicity both in animals and in cell-based assays. We are committed to the development of MDI-P as an anti-infective therapeutic product for in-vitro and in-vivo applications. Our highest priority is to develop and commercialize MDI-P as a pharmaceutical for the treatment of HIV and Cystic Fibrosis. On November 1, 2004, we filed an Investigative New Drug application (IND) with the Food and Drug Administration (FDA) for MDI-P as a Cystic Fibrosis treatment. We plan to file an IND with the FDA for HIV in early 2005.

The Offering

Securities offered by the Selling Stockholders	350,000 shares restricted common stock 84,000,000(1) shares of common stock issuable upon conversion of Series A convertible preferred stock 29,161,158 shares of common stock issuable upon exercise of warrants
Shares of our common stock outstanding prior to this offering	104,581,669(2)
Shares of common stock outstanding following this offering, if all shares are sold	218,092,827
Use of Proceeds	All net proceeds of this offering will be received by the Selling Stockholders.
Risk Factors	You should read the "Risk Factors" beginning on page 2 as well as other cautionary statements throughout this prospectus before investing in any shares offered hereunder.

(1) This registration statement covers, in part, the estimated number of shares of common stock issuable upon conversion of one issuance and one contingent issuance of Series A convertible preferred stock. On October 18, 2004 we issued 12,000 shares of Series A preferred stock to Monarch Pointe Fund, Ltd. Under the terms of that issuance, each share of Series A stock entitles the holder to convert the share into the number of shares of common stock resulting from multiplying $100 by the conversion price. The conversion price is 85% of the average of the lowest three intra-day trading prices for our common stock during the 10 trading days immediately preceding the conversion date, but the conversion price may not exceed $0.1967 or be lower than $0.05. For purposes of this filing, we have assumed a conversion price of $0.05 per share for purposes of the 12,000 share Series A issuance. Thus, for that issuance we are registering 24,000,000 shares of common stock (which is the number of shares required to be registered pursuant to the applicable registration rights agreement with Monarch Pointe Fund, Ltd.). On December 7, 2004 we entered into a subscription agreement to issue 30,000 shares of Series A preferred stock to Mercator Momentum

Fund, LP and Mercator Momentum Fund III, LP. The sale is contingent upon us entering into and closing a definitive agreement to purchase certain assets in a proposed acquisition, the details of which have not yet been disclosed and regarding which no definitive agreement is yet executed. Under the terms of that contingent issuance, each share of Series A stock would entitle the holder to convert the share into the number of shares of common stock resulting from multiplying $100 by the conversion price. The conversion price is 75% of the average of the lowest three intra-day trading prices for our common stock during the 10 trading days immediately preceding the conversion date, but the conversion price may not exceed $0.1967. For purposes of this filing, we have assumed a conversion price of $0.05 per share for purposes of the 302,000 share Series A contingent issuance. Thus, for that contingent issuance we are registering 60,000,000 shares of common stock (which is the number of shares required to be registered pursuant to the applicable registration rights agreement with Mercator Momentum Fund, LP and Mercator Momentum Fund III, LP).

(2) Excludes up to 19,283,000 shares of common stock authorized for issuance upon exercise of outstanding options granted pursuant to our stock option plans, 4,000,000 shares of our common stock reserved for the future grant of stock options under such plans, and 38,551,695 shares of our common stock issuable upon exercise of warrants (which 38,551,695 includes the 29,161,158 shares of common stock subject to outstanding warrants being registered in this offering).

In addition, pursuant to Rule 416 of the Securities Act, this prospectus, and the registration statement of which it is a part, covers a presently indeterminate number of shares of stock issuable upon the occurrence of a stock split, stock dividend or other similar transaction.

Selling Stockholders

All of the offered shares are to be sold by existing security holders. The selling stockholders acquired the rights to their shares and warrants (i) in a private placement of Series A Convertible Preferred Stock and warrants in October 2004; (ii) in a contingent private placement of Series A Convertible Preferred Stock and warrants in December 2004; and (iii) in exchange for placement agent services and consulting in connection with the foregoing financings.

Of the shares of our common stock offered hereby, 350,000 shares consist of restricted common stock, an estimated 84,000,000 shares are issuable upon the conversion of Series A Convertible Preferred Stock , and 29,161,158 shares are issuable upon the exercise of outstanding warrants to purchase our common stock.

In addition, pursuant to Rule 416 of the Securities Act, this prospectus and the registration statement of which it is a part cover a presently indeterminate number of shares of common stock issuable upon the occurrence of a stock split, stock dividend, or other similar transaction.

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should consider the following discussion of risks in addition to the other information in this prospectus before making an investment in Medical Discoveries. If any of the following risks actually occurs, our business, financial condition or results of operations could be materially adversely affected. In such a case, you may lose all or part of your investment. The risks below address some of the factors that may affect our future operating results and financial performance.

Risks Relating to Our Business

Our Independent Auditors Have Expressed Substantial Doubt As To Our Ability To Continue As A Going Concern.Our auditors have expressed substantial doubt about our ability to continue as a going concern because of our recurring losses from our development-stage activities in current and prior years. We have not generated any significant revenues to date. We expect to continue to incur substantial net operating losses over the next several years. We may not be able to generate sufficient revenues to become profitable and do not expect to generate any revenues for several years. We struggle with operating and liquidity issues due to our negative cash flows from operations and we have had difficulty in the past with raising capital. As a result of these and other factors, our independent auditors have

expressed substantial doubt about our ability to continue as a going concern. The financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

We Have Incurred Substantial Losses Since Our Inception And May Continue To Operate At A Loss. We have experienced net losses in each twelve-month period since inception, with a retained deficit of approximately $19,469,584 as of September 30, 2004. Our losses from operations in 2003 were $952,043 and our cumulative losses from operations since inception through September 30, 2004 were $18,070,007. We will likely continue to experience a net operating loss until, and if, we can fully commercialize our technologies, which will not be for several years. We are presently investing all of our resources in the testing, development and commercialization of MDI-P and our other technologies. There can be no assurance that MDI-P, our other technologies, or any other project undertaken by us will ever enable us to generate consistent revenues from operations. Even if our technologies begin generating revenues, the revenues may not exceed the costs of research, development, testing, regulatory approval and other costs. Accordingly, we may not ever realize a profit from operations.

We May Not Be Able To Raise Sufficient Capital To Meet Present And Future Obligations. As of September 30, 2004, our current liabilities exceeded our current assets by $2,825,710 and we had cash of only $434,455. We need additional capital in order to satisfy current liabilities and meet basic operational needs. We also will need substantial additional capital to fund regulatory approvals and to fully commercialize our technologies. We do not anticipate that revenues will satisfy these capital requirements. Furthermore, we may not to be able to obtain the amount of additional capital needed or may be forced to pay an extremely high price for capital.

The timing and amount of our future capital requirements will depend on many factors, including, without limitation the following:

- our ability to raise additional funding and the amounts raised, if any;
- the time and costs involved in obtaining regulatory approvals;
- the results of pre-clinical studies and clinical trials;
- the cost of manufacturing scale-up;
- competing technological and market developments;
- the costs of filing, prosecuting and enforcing patent claims; and
- the effectiveness of our commercialization activities.

Factors affecting the availability and price of capital may include, without limitation, the following:

- market factors affecting the availability and cost of capital generally;
- our performance;
- the size of our capital needs;
- the market’s perception and acceptance of our technologies;
- the price, volatility and trading volume of our common shares; and

- the effect of the exercise of outstanding options and warrants exercisable into approximately 58 million shares of common stock.

If we are unable to obtain sufficient capital or are forced to pay a high price for capital, we may be unable to complete testing, regulatory approval and commercialization of our technologies and may never achieve consistent revenues or profitability. In addition, because of their size, resources and other factors, our competitors may have better access to capital than we do and, as a result, may be able to exploit opportunities more rapidly, easily or thoroughly than we can.

We Are Dependent On A Single Product, The Failure Of Which Would Likely Cause Us To Cease Operations. We are entirely dependent on our ability to develop MDI-P, which is our sole product. We have not commercialized MDI-P or any other product and our failure to commercialize MDI-P would likely cause us to cease operations. While we believe MDI-P may have very broad commercial applications and is not tied to any one indication, we do not have any other products under development, nor do we have scientific personnel on staff to develop any further technologies. While our pre-clinical studies of MDI-P to date have been quite favorable in terms of high efficacy as an anti-infective with a low toxicity profile, there is no certainly that MDI-P will be successful. The results of our pre-clinical studies may not be indicative of future clinical trials. Moreover, unacceptable toxicity could occur at any time in the course of human trials or, if MDI-P is approved for sales, during commercial use. Even if MDI-P does prove to be safe and effective and receives regulatory approvals, we may be unable to successfully commercialize it or any other product.

Our Operations Are And Will Be Subject To Extensive Government Regulation. Our use of MDI-P in the treatment of Cystic Fibrosis, HIV and for other human or non-human uses is subject to extensive regulation by United States and foreign governmental authorities. In particular, pharmaceutical treatments are subject to rigorous pre-clinical and clinical testing and other approval requirements by the FDA in the United States under the federal Food, Drug and Cosmetic Act and by comparable agencies in most foreign countries. Various federal, state and foreign statutes also govern or influence the manufacture, labeling, storage, record keeping, and marketing of such products. Pharmaceutical manufacturing facilities are also regulated by state, local, and other authorities. Obtaining approval from the FDA and other regulatory authorities for a new drug or treatment may take several years and involve substantial expenditures. Moreover, ongoing compliance with these requirements can require the expenditure of substantial resources. Difficulties or unanticipated costs may be encountered by us in our efforts to secure necessary governmental approvals, which could delay or preclude us from marketing MDI-P.

There can be no assurance that we will attract sufficient capital to complete the regulatory approval process. Even if we do attract sufficient capital, we can make no assurance that we will be successful in achieving approval or, if we do achieve approval, that future revenues will be sufficient to justify the expense of the regulatory approval process. In addition, a marketed product is subject to continual FDA scrutiny. Post-clinical discovery of problems or failure to comply with Good Manufacturing Practices or other FDA requirements may result in restrictions on or discontinuance of marketing of a product, as well as expose the Company to potential civil and criminal sanctions.

The FDA imposes substantial requirements upon and conditions precedent to the introduction of therapeutic drug products, such as MDI-P, through lengthy and detailed laboratory and clinical testing procedures, sampling activities and other costly and time consuming procedures to demonstrate that such products are both safe and effective in treating the indications for which approval is sought. After testing in animals, an Investigational New Drug, or IND, application must be filed with the FDA to obtain authorization for human testing. When the clinical testing has been completed and analyzed, final manufacturing processes and procedures are in place, and certain other required information is available to the manufacturer, a manufacturer may submit a new drug application, or NDA, to the FDA. No action can be taken to market MDI-P, or any therapeutic drug product, in the United States until an NDA has been approved by the FDA.

The IND process in the United States is governed by regulations established by the FDA which strictly control the use and distribution of investigational drugs in the United States. The guidelines require that an application contain sufficient information to justify administering the drug to humans, that the application include relevant information on the chemistry, pharmacology and toxicology of the drug derived from chemical, laboratory and animal or *in vitro* testing, and that a protocol be provided for the initial study of the new drug to be conducted on humans.

In order to conduct a clinical trial of a new drug in humans, a sponsor must prepare and submit to the FDA a comprehensive IND. The focal point of the IND is a description of the overall plan for investigating the drug product and a comprehensive protocol for each planned study. The plan is carried out in three phases: Phase I clinical trials, which involve the administration of the drug to a small number of healthy subjects to determine safety, tolerance, absorption and metabolism characteristics; Phase II clinical trials, which involve the administration of the drug to a limited number of patients for a specific disease to determine dose response, efficacy and safety; and Phase III clinical trials, which involve the study of the drug to gain confirmatory evidence of efficacy and safety from a wide base of investigators and patients.

Phase I testing typically takes at least one year, Phase II trials typically take from 1-1/2 to 2-1/2 years, and Phase III trials generally take from 2 to 5 years to complete. Should the FDA grant "fast-track" status to MDI-P based upon its safety profile and early signs of efficacy in Phase I clinical trials, the overall timeline for completion of Phase II-III clinical trials can be compacted to as little as 2-3 years. We can give no assurance that Phase I, Phase II or Phase III testing for MDI-P will be completed successfully within any specified time period, if at all. While we are hopeful that "fast-track" status might be provided MDI-P, there is no assurance that such status will, in fact, be provided. Furthermore, the FDA may suspend clinical trials at any time if the patients are believed to be exposed to a significant health risk.

An investigator's brochure must be included in the IND and the IND must commit the sponsor to obtain initial and continual review and approval of the clinical investigation. A section describing the composition, manufacture and control of the drug substance and the drug product is included in the IND. Sufficient information is required to be submitted to assure the proper identification, quality, purity and strength of the investigational drug. A description of the drug substance, including its physical, chemical, and biological characteristics, must also be included in the IND. The general method of preparation of the drug substance must be included. A list of all components including inactive ingredients must also be submitted. There must be adequate information about pharmacological and toxicological studies of the drug involving laboratory animals and *in vitro* tests on the basis of which the sponsor has concluded that it is reasonably safe to conduct the proposed clinical investigation. Where there has been widespread use of the drug outside of the United States or otherwise, it is possible in some limited circumstances to use well documented clinical experience as a substitute for other pre-clinical work.

The FDA typically takes several months to consider and act on an IND application. If no agency comment is provided on the IND application within one month, we will be allowed to begin recruiting patients for our Phase I clinical trial. We can give no assurance that our IND application will be approved or, if approved following comments or subject to modifications, the length of FDA approval time.

After the FDA approves the IND, the investigation is permitted to proceed, during which the sponsor must keep the FDA informed of new studies, including animal studies, make progress reports on the study or studies covered by the IND, and also be responsible for alerting FDA and clinical investigators immediately of unforeseen serious side effects or injuries.

When all clinical testing has been completed and analyzed, final manufacturing processes and procedures are in place, and certain other required information is available to the manufacturer, a manufacturer may submit an NDA to the FDA. An NDA must be approved by the FDA covering the drug before its manufacturer can commence commercial distribution of the drug. The NDA contains a

section describing the clinical investigations of the drug which section includes, among other things, the following: a description and analysis of each clinical pharmacology study of the drug; a description and analysis of each controlled clinical study pertinent to a proposed use of the drug; a description of each uncontrolled clinical study including a summary of the results and a brief statement explaining why the study is classified as uncontrolled; and a description and analysis of any other data or information relevant to an evaluation of the safety and effectiveness of the drug product obtained or otherwise received by the applicant from any source foreign or domestic. The NDA also includes an integrated summary of all available information about the safety of the drug product including pertinent animal and other laboratory data, demonstrated or potential adverse effects of the drug, including clinically significant potential adverse effects of administration of the drug contemporaneously with the administration of other drugs and other related drugs. A section is included describing the statistical controlled clinical study and the documentation and supporting statistical analysis used in evaluating the controlled clinical studies.

Another section of the NDA describes the data concerning the action of a drug in the human body over a period of time and data concerning the extent of drug absorption in the human body or information supporting a waiver of the submission of such data. Also included in the NDA is a section describing the composition, manufacture and specification of the drug substance including the following: a full description of the drug substance, its physical and chemical characteristics; its stability; the process controls used during manufacture and packaging; and such specifications and analytical methods as are necessary to assure the identity, strength, quality and purity of the drug substance as well as the availability of the drug products made from the substance. NDAs contain lists of all components used in the manufacture of the drug product and a statement of the specifications and analytical methods for each component. Also included are studies of the toxicological actions of the drug as they relate to the drug's intended uses.

The data in the NDA must establish that the drug has been shown to be safe for use under its proposed labeling conditions and that there is substantial evidence that the drug is effective for its proposed use(s). Substantial evidence is defined by statute and FDA regulation to mean evidence consisting of adequate and well-controlled investigations, including clinical investigations by experts qualified by scientific training and experience, to evaluate the effectiveness of the drug involved. We can give no assurance that even if we complete clinical testing that our NDA will be approved. Currently, we have not completed all testing required to prepare and submit an IND to the FDA and we do not have the financial resources necessary to do so.

Other product applications which may be developed for MDI-P could require regulatory approvals from other governmental agencies, such as the Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act and the Toxic Substances Control Act, and other present and potential federal, state and local regulations. These approvals can involve considerable money, time and effort and do not, in and of themselves, guarantee any commercial success for the product applications approved.

Our Products Will Be Exposed To Pricing And Reimbursement Risks.Our ability to earn revenue will depend in part on the extent to which reimbursement for the costs of the products and related treatments will be available from government health administration authorities, private health coverage and managed care organizations. Third-party payers are increasingly challenging the prices of drugs and medical services. If purchasers or users of MDI-P are not able to obtain adequate reimbursement, they may forego or reduce their use.

Our Technologies Are Unproven. While we have received positive results from preliminary studies of MDI-P, more studies are necessary in order for us to accurately predict the ultimate effectiveness of our technologies as anti-viral, anti-bacterial and anti-fungal agents. Furthermore, we cannot as of yet be sure that MDI-P is safe to humans when used as intended. Extensive additional research and testing will be necessary before we can fully commercialize our technologies. If our technologies are ultimately deemed unsafe or ineffective, then we will not likely be able to recoup our substantial investment in research and development.

We Face Intense Competition And Competing Products. Competition in the market for MDI-P is intense and will likely further intensify. The biotechnology and pharmaceutical industries are characterized by rapidly evolving technologies and intense competition. Our competitors include major pharmaceutical, and specialized biotechnology companies, many of which have financial, technical, and marketing resources significantly greater than ours. Fully integrated pharmaceutical companies, due to their expertise in research and development, manufacturing, testing, obtaining regulatory approvals, and marketing, as well as their substantially greater financial and other resources, may be our most formidable competitors. In addition, acquisitions by such pharmaceutical companies could enhance the financial and marketing resources of smaller competitors. Furthermore, colleges, universities, governmental agencies, and other public and private research organizations will continue to conduct research and possibly market competitive commercial products on their own or through joint ventures. These institutions are becoming more active in seeking patent protection and licensing arrangements to collect royalties for use of technology that they have developed. These institutions also will compete with us in recruiting and retaining highly qualified scientific personnel.

We are also aware of private and government entities that have studied and used MDI-P-like products in Russia, Japan and the United States for several years. If MDI-P gains recognition, we anticipate that international pharmaceutical companies will be interested in investing or competing in this market. Our present and future competitors may be able to develop and commercialize technologies quicker than we can.

If and when we obtain regulatory approval for any of the potential uses of our technology which require them, we must then compete for acceptance in the marketplace. Given that such regulatory approval, especially in the United States, may take a number of years, the timing of the introduction of our technology and other products to the market is critical. Other safe and effective drugs and treatments may be introduced into the market prior to the time that we are able to obtain approval for the commercialization of our technology. In addition, even after such regulatory approval is obtained, competition among products approved for sale may be affected by, among other things, product efficacy, safety, reliability, availability, price, and patent position. There can be no assurance that our technology will be competitive if and when introduced into the marketplace for any of its possible uses. Even if we do successfully commercialize our technologies, there can be no assurance that our products will gain significant market share as we attempt to compete with more traditional anti-infective products and methods.

Our Intellectual Property May Not Be Adequately Protected. Our technology is not necessarily novel; thus we rely heavily on our patent protection to prevent others from using the human therapeutic applications of our technology. It is our policy to protect our intellectual property and proprietary technologies by, among other means, filing patent applications to protect technology that we consider important to the development of our business. We also rely on trade secrets and improvements, unpatented know-how, and continuing technological innovation to develop and maintain our competitive position. Despite our policy to seek patent protection wherever appropriate, there can be no assurance that our patent applications will result in further patents being issued or that, if issued, the patents will afford protection against competitors with similar technology. While we have obtained several United States patents, persons in jurisdictions outside of the United States in which no application has been filed, or which do not honor United States patents, may develop and market infringing technologies. Also, the cost of enforcing patents outside of North America, as well as other obstacles, may limit our ability to enforce any patents outside of the United States. There can also be no assurance that any patent issued to us will not be infringed or circumvented by others or that others will not obtain patents that we would need to license or circumvent. There can be no assurance that licenses, which might be required for our processes or products, would be available on reasonable terms or that patents issued to others would not prevent us from developing and marketing our products. In addition, there can be no assurance that a court of competent jurisdiction would hold our patents valid if issued. To the extent we also rely on unpatented trade secrets, there can be no assurance that others will not independently develop

substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technology. Finally, our products and processes may infringe on patents of others. If relevant claims of third-party patents are upheld as valid and enforceable, we could be prevented from practicing the subject matter claimed in the claims, or be required to obtain licenses or redesign our products or processes to avoid infringement.

We Face Significant Product Liability. We face an inherent business risk of exposure to product liability and other claims in the event our products results in or is alleged to result in harmful effects. We may not be able to avoid significant liability exposure. We may not have or be able to obtain or maintain sufficient insurance coverage at a reasonable cost. An inability to obtain sufficient insurance coverage at a reasonable cost could prevent or inhibit the commercialization of our technology. Even if we avoid liability exposure, we could incur significant costs that hurt our financial performance.

Risks Specific to the Purchase of Common Stock in This Offering

The Market For Our Stock Is Thin And Subject To Manipulation. Our common stock is traded on the NASD OTC Bulletin Board under the symbol "MLSC." The following table sets forth the range of bid quotations for our common stock for the quarters indicated according to data provided by The NASDAQ Stock Market, Inc. Such quotations reflect inter-dealer prices, without retail mark-ups, markdowns or commissions, and may not represent actual transactions.

PERIOD	HIGH BID	LOW BID
Quarter ended September 30, 2004	$ 0.	$ 0.
Quarter ended June 30, 2004	0.	0.
Quarter ended March 31, 2004	0.	0.
Quarter ended December 31, 2003	0.085	0.035

The Market Price For Our Common Stock Will Likely Be Volatile And May Change Dramatically At Any Time. The market price of our common stock, like that of the securities of other early-stage companies, may be highly volatile. Our stock price may change dramatically as the result of announcements of our quarterly results, the execution or termination of significant customer contracts, significant litigation or other factors or events that would be expected to affect our business or financial condition, results of operations and other factors specific to our business and future prospects. In addition, the market price for our common stock may be affected by various factors not directly related to our business, including the following:

- intentional manipulation of our stock price by existing or future stockholders;
- short selling of our common stock or related derivative securities;
- the interest, or lack of interest, of the market in our business sector, without regard to our financial condition or results of operations;
- the adoption of governmental regulations and similar developments in the United States or abroad that may affect our ability to develop our products or affect our cost structure;
- economic and other external market factors, such as poor economic indicators or investor distrust.

Obtaining Additional Capital Though The Sale Of Common Stock Will Result In Dilution Of Stockholder Interests We plan to raise additional funds in the future by issuing additional shares of common stock, or securities such as convertible notes, options, warrants or preferred stock that are

convertible into common stock. Any such sale of common stock or other securities will lead to further dilution of the equity ownership of existing holders of our common stock.

We Are Unlikely To Pay Dividends On Our Common Stock In the Foreseeable Future We have never declared or paid dividends on our stock. We currently intend to retain all available funds and any future earnings for use in the operation and expansion of our business. We do not anticipate paying any cash dividends in the foreseeable future, and it is unlikely that investors will derive any current income from ownership of our stock. This means that your potential for economic gain from ownership of our stock depends on appreciation of our stock price and will only be realized by a sale of the stock at a price higher than your purchase price. Because there presently is no public market for our common stock, you may be unable to realize a gain on your investment.

FORWARD-LOOKING STATEMENTS

This prospectus, any supplement to this prospectus and the documents incorporated by reference contains statements that constitute "forward-looking statements" within the meaning of section 27A of the Securities Act and section 21E of the Securities Exchange Act. To the extent that the information presented in this prospectus discusses financial projections, information or expectations about our business plans, results of operations, products or markets, or otherwise makes statements about future events, such statement are forward-looking. Such statements can be identified by the use of the forward-looking words such as "intends," "anticipates," "believes," "estimates," "projects," "forecasts," "expects," "plans," and "proposes" and variations of such words or similar expressions. Additional forward-looking statements may be made by us from time to time.

Although we believe that the expectations reflected in these forward-looking statements are based on reasonable assumptions, expressed in good faith and have a reasonable basis, including without limitation, our examination of historical operating trends, data contained in our records and other data available from third parties, there can be no assurance that our expectations, beliefs and projections will result or be achieved or accomplished. There are a number of risks and uncertainties that could cause actual results to differ materially from such forward-looking statements. These include, among others, the cautionary statements in the "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of this prospectus. When considering forward-looking statements in this prospectus, you should keep in mind the cautionary statements in the "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other sections of this prospectus.

In addition, these forward-looking statements speak only as of the date of this prospectus. We undertake no obligation to publicly update or revise forward-looking statements which may be made to reflect events or circumstances after the date made or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock, less any applicable discounts or commissions. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

DETERMINATION OF OFFERING PRICE

The offering price of the shares of common stock offered by this prospectus is being determined by each of the selling stockholders on a transaction-by-transaction basis based upon factors that such selling stockholder considers appropriate. The offering prices determined by the selling stockholders

may, or may not, relate to a current market price but should not, in any case, be considered an indication of the actual value of the shares of common stock. We do not have any influence over the price at which selling stockholders offer or sell the shares of common stock offered by this prospectus.

DILUTION

Our net tangible book value (tangible assets less total liabilities) at September 30, 2004 was $(2,825,710) or approximately $(0.0275) per each of the 102,746,101 shares of common stock then outstanding. Accordingly, new investors who purchase shares will suffer an immediate, total dilution of their investment.

As of September 30, 2004, there were outstanding options to purchase up to 19,283,000 shares of our common stock as well as warrants to purchase up to 7,299,979 shares of our common stock. The existence of those options and conversion rights may hinder future equity offerings by us, and the exercise of those options and conversion rights may have an adverse effect on the value of shares of our common stock. Furthermore, the holders of those options and conversion rights may exercise them at a time when we would otherwise be able to obtain additional equity capital on terms more favorable to us.

SELLING SECURITY HOLDERS

All of the offered shares are to be sold by existing security holders. The selling stockholders acquired the rights to their shares and warrants (i) in a private placement of Series A Convertible Preferred Stock and warrants in October 2004; (ii) in a contingent private placement of Series A Convertible Preferred Stock and warrants in December 2004; and (iii) in exchange for placement agent services and consulting in connection with the foregoing financings.

Of the shares of our common stock offered hereby, 350,000 shares consist of restricted common stock, 84,000,000 shares are issuable upon the conversion of Series A Convertible Preferred Stock, and 29,161,158 shares are issuable upon the exercise of outstanding warrants to purchase our common stock.

In addition, pursuant to Rule 416 of the Securities Act, this prospectus and the registration statement of which it is a part cover a presently indeterminate number of shares of common stock issuable upon the occurrence of a stock split, stock dividend, or other similar transaction.

For purposes of this prospectus, we have assumed that the number of shares issuable upon exercise of each of the warrants is the number stated on the face thereof. The number of shares issuable upon exercise of the warrants, and available for resale hereunder, is subject to adjustment and could materially differ from the estimated amount depending on the occurrence of a stock split, consolidation stock dividend, or similar transaction resulting in an adjustment in the number of shares subject to the warrants.

The table below sets forth, as of December 22, 2004:

- the name of each selling stockholder;
- certain beneficial ownership information with respect to the selling stockholders;
- the number of shares that may be sold from time to time by each selling stockholder pursuant to this prospectus; and
- the amount (and, if 1% or more, the percentage) of shares of common stock to be owned by each selling stockholder if all offered shares are sold.

Beneficial ownership is determined in accordance with SEC rules and generally includes voting or investment power with respect to securities. Shares of common stock that are issuable upon the

conversion of Preferred stock or exercise of outstanding warrants held by a selling stockholder, to the extent exercisable before December , 2004, are treated as outstanding for purposes of computing each selling stockholder's ownership of outstanding shares of common stock and percentage ownership (but not the percentage ownership of other selling stockholders).

We believe that voting and investment power with respect to shares shown as beneficially owned by selling stockholders resides with the individuals identified in the table below, with respect to entities, or in the footnotes to the table below. There can be no assurance that any of the shares offered hereby will be sold.

	Beneficial Ownership Before Offering			Beneficial Ownership upon Completion of the Offering	
Beneficial Owner	Number of Shares	Percent	Number of Shares Being Offered	Number of Shares	Percent
Monarch Pointe Fund, Ltd.	27,660,397(1)	12.68	27,660,397	—	—
Mercator Momentum Fund, LP	42,248,856(2)	19.37	42,248,856	—	—
Mercator Momentum Fund III, LP	29,189,883(2)	13.38	29,189,883	—	—
Mercator Advisory Group, LLC	12,353,838(2)	5.66	12,353,838	—	—
Ascendiant Securities, LLC	1,708,184	0.78	1,708,184	—	—
Ascendiant Capital Group, LLC	350,000	0.16	350,000	—	—

(1) Includes an estimated number of shares of common stock issuable upon conversion of Series A convertible preferred stock. On October 18, 2004 we issued 12,000 shares of Series A preferred stock to Monarch Pointe Fund, Ltd. Under the terms of that issuance, each share of Series A stock entitles the holder to convert the share into the number of shares of common stock resulting from multiplying $100 by the conversion price. The conversion price is 85% of the average of the lowest three intra-day trading prices for our common stock during the 10 trading days immediately preceding the conversion date, but the conversion price may not exceed $0.1967 or be lower than $0.05. For purposes of this filing, we have assumed a conversion price of $0.05 per share for purposes of the 12,000 share Series A issuance. Thus, for that issuance we are registering 24,000,000 shares of common stock (which is the number of shares required to be registered pursuant to the applicable registration rights agreement with Monarch Pointe Fund, Ltd.).

(2) Includes an estimated number of shares of common stock issuable upon conversion of a contingent issuance of Series A convertible preferred stock. On December 7, 2004 we entered into a subscription agreement to issue 30,000 shares of Series A preferred stock to Mercator Momentum Fund, LP and Mercator Momentum Fund III, LP. The sale is contingent upon us entering into and closing a definitive agreement to purchase certain assets in a proposed acquisition, the details of which have not yet been disclosed and regarding which no definitive agreement is yet executed. Under the terms of that contingent issuance, each share of Series A stock would entitle the holder to convert the share into the number of shares of common stock resulting from multiplying $100 by the conversion price. The conversion price is 75% of the average of the lowest three intra-day trading prices for our common stock during the 10 trading days immediately preceding the conversion date, but the conversion price may not exceed $0.1967. For purposes of this filing, we have assumed a conversion price of $0.05 per share for purposes of the 302,000 share Series A contingent issuance. Thus, for that contingent issuance we are registering 60,000,000 shares of common stock (which is the number of shares required to be registered pursuant to the applicable registration rights agreement with Mercator Momentum Fund, LP and Mercator Momentum Fund III, LP).

PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of

common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

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

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

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

The selling stockholders may also sell shares by means of short sales to the extent permitted by United States securities laws. Short sales involve the sale by a selling shareholder, usually with a future delivery date, of shares of common stock that the seller does not own. Covered short sales are sales made in an amount not greater than the number of shares subject to the short seller's warrant, exchange right or other right to acquire shares of common stock. A selling shareholder may close out any covered short position by either exercising its warrants or exchange rights to acquire shares of common stock or purchasing shares in the open market. In determining the source of shares to close out the covered short position, a selling shareholder will likely consider, among other things, the price of shares of common stock available for purchase in the open market as compared to the price at which it may purchase shares of common stock pursuant to its warrants or exchange rights.

Naked short sales are any sales in excess of the number of shares subject to the short seller's warrant, exchange right or other right to acquire shares of common stock. A selling shareholder must close out any naked position by purchasing shares. A naked short position is more likely to be created if a selling shareholder is concerned that there may be downward pressure on the price of the shares of common stock in the open market.

The existence of a significant number of short sales generally causes the price of the shares of common stock to decline, in part because it indicates that a number of market participants are taking a

position that will be profitable only if the price of the shares of common stock declines. Purchases to cover naked short sales may, however, increase the demand for the shares of common stock and have the effect of raising or maintaining the price of the shares of common stock.

The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities that require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

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

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

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

Expenses, Indemnification and Registration Obligations. We are paying the expenses incurred in connection with preparing and filing this prospectus and the registration statement to which it relates, other than selling commissions. We have not retained any underwriter, broker or dealer to facilitate the offer or sale of the shares offered hereby. We will pay no underwriting commissions or discounts in connection therewith.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus. The selling stockholders may indemnify any broker-dealers that participate in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

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

Passive Market Making. We have advised the selling stockholders that while they are engaged in a distribution of the shares offered pursuant to this prospectus, they are required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended. With certain exceptions, Regulation M precludes the selling stockholders, any affiliate purchasers and any broker-dealers or other persons who participate in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase, any security that is subject to the distribution until the entire distribution is complete. Regulation M also restricts bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. We do not intend to engage in any passive market making or stabilization transactions during the course of the distribution described in this prospectus. All of the foregoing may affect the marketability of the shares offered pursuant to this prospectus.

Limitations. We have advised the selling stockholders that, to the extent necessary to comply with governing state securities laws, the offered securities should be offered and sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, we have advised the selling stockholders that the offered securities may not be offered or sold in any state unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available with respect to such offers or sales.

LEGAL PROCEEDINGS

We are not aware of any legal proceedings against us. We may however be involved, from time to time, in various legal proceedings and claims incident to the normal conduct of our business.

DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS

The following table sets forth certain information regarding the executive officers and directors of Medical Discoveries, Inc. as of December 22, 2004.

Name	Age	Title	Term of
David R. Walker	59	Chairman of the Board of Directors	6 Years
Judy Robinett	51	President and Chief Executive Officer, Director	4 Years
Larry Anderson	55	Director	< 1 Year
Stephen R. Drake	35	Secretary	< 1 Year

David R. Walker

David R. Walker joined the Board of Directors on May 2, 1996, and was appointed Chairman of the Board of Directors on May 10, 1998. He has served as Chairman of the Audit Committee since its inception in 2001. For over 20 years, Mr. Walker has held the office of General Manager of Sunheaven Farms, the largest onion growing and packing entity in the State of Washington with annual revenues in excess of $50 million. In the capacity of General Manager, Mr. Walker performs the functions of a traditional chief financial officer. Mr. Walker holds a Bachelor of Arts degree in economics from Brigham Young University with minors in accounting and finance.

Judy Robinett

Judy M. Robinett has held the office of President and Chief Executive Officer since November, 2000, and joined the Board of Directors on February 9, 2001. Since 1994, she has owned and operated an international consulting company focused on strategic planning, finance, marketing, and distribution for entrepreneurs and established companies. Prior to that, Ms. Robinett's employment positions included Vice President for Quality Improvement for a regional hospital, Division Manager for Universal Foods, Group Manager for EG&G's Nuclear Training Facility in Idaho, and a Planner for the State of Idaho. Ms. Robinett has published more than 50 articles on business finance and operations and is a recognized authority on quality control. Ms. Robinett holds a Bachelors of Sciences degree in psychology and a Masters degree in labor economics from Utah State University.

Larry Anderson

Larry Anderson has a wide range of investment banking, sales and entrepreneurial experience. He has held investment banking and stock broker positions with Merrill Lynch, Oppenheimer and Kidder Peabody, managing up to $300 million in accounts. Mr. Anderson has significant sales experience including holding national sales leader awards while at Automated Data Processing and Qantel. Mr.

Anderson is an entrepreneur with numerous start-ups and turn-arounds to his credit. He currently owns and operates, among other companies, C Innovation, a leading K-12 educational software company. Mr. Anderson currently lives in Salt Lake City, Utah, and attended college at Brigham Young University.

Stephen R. Drake

Stephen R. Drake was elected Secretary of the Company effective as of April 1, 2004. He has served as legal counsel to the Company since November 2000. Mr. Drake is an attorney in private practice with Stoel Rives LLP in Boise, Idaho, where he practices corporate and securities law. Mr. Drake received a Bachelors of Arts degree, *cum laude,* from Albertson College in 1991 and a Juris Doctor degree,*cum laude,* from Willamette University College of Law in 1996.

We also have a scientific advisory board consisting of the following individuals:

Bruce I. Dezube, M.D.
Director of AIDS Oncology, Beth Israel Deaconess Medical Center, Boston
Associate Professor of Medicine, Harvard Medical School
We retained Dr. Dezube to oversee medical testing, FDA protocol alignment and approvals planning for MDI-P. Dr. Dezube will be the principal investigator for our IND in HIV. Dr. Dezube is a member of the AIDS Clinical Trial Group (ACTG) where he is principal investigator in more than seven studies involving the testing and evaluation of interferon and newer anti-HIV agents. Additionally, Dr. Dezube has been involved in industry-sponsored studies of other anti-HIV agents, assisting with required FDA approvals. In one such action, Dr. Dezube assisted Fuji Immuno Pharmaceuticals, Inc. in receiving the quickest FDA approval for Phase 1 clinical trials ever granted an anti-HIV drug. Dr. Dezube received his M.A. from Harvard University and his M.D. from Tufts University. Dr. Dezube was a research fellow in hematology and oncology and is board certified in internal medicine, hematology, and oncology.

Robert A. Mastico, Ph.D.
Physical Chemist, Independent Consultant
Dr. Mastico specializes in the chemistry, manufacturing and control of new drug substances required for FDA approval. He successfully submits at least three new INDs to the FDA each year, handling the manufacturing and analytical data (CMC section) for investigational therapeutics. We have retained Dr. Mastico to determine the chemical characterization requirements for MDI-P, and for planning and compliance with all FDA and other required certifications involving chemical analyses. Dr. Mastico received his Ph.D. from the University of Leeds in genetic biochemistry and has fifteen years experience in the fields of biotherapeutics and pharmaceutical production.

Craig R. Palmer, Ph.D.
Principal, Palmer Capital Group, LLC
Dr. Palmer has served over the past twenty years as a strategic financial advisor to a wide variety of technology platform and biotech companies in their capital formation, management and product licensing arenas. We have retained Dr. Palmer to assist us in managing the pre-clinical and clinical development of MDI-P as well as commercialization. He serves as a director on several biotech and biomedical companies, and has successfully licensed major ethical drugs and biomedical devices. Prior to his involvement as a Principal in Palmer Capital Group LLC, and its predecessor The Palmer Group, he served as a manager and principal in the consulting operations of Ernst & Young (10 years), followed by a brief stint as a VP of Investments for a regional bank and its SBIC. Dr. Palmer has assisted a number of his clients in securing underwriters for their IPOs or secondary offerings. He has also assisted several clients in establishing major strategic partnerships for product development. Dr. Palmer received his Ph.D. from the University of Washington, where he was an NDEA Title IV fellow.

Dr. Henry R. Thompson, M.D.
Director, Cystic Fibrosis Program Therapeutics Center, St. Luke's Health Center, Boise, Idaho
On September 23, 2004, Dr. Thompson agreed to serve as Project Manager and Principal Investigator for

MDI's Phase I trials in late-term adult Cystic Fibrosis (CF) patients. Dr. Thompson is a gastroentologist, and received his M.D. from Oregon Health Sciences University. He held a Fellowship in pediatric gastroenterology at Children's Hospital in Denver, at the University of Colorado Health Science's unit, where he also participated in clinical studies. Dr. Thompson has been an Assistant Professor at the University of Utah's Medical School, and is a Board certified Fellow in the American Association of Pediatrics. He has previously received grants from both the Cystic Fibrosis Foundation and the NIH.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information regarding persons known by the Company to beneficially own, as defined by Rule 13d-3 under the Securities Exchange Act of 1934, more than 5% of Common Stock as of November 4, 2004, based solely on information regarding such ownership available to the Company in filings by such beneficial owners with the SEC on Schedules 13D and 13G. The following table also sets forth information regarding beneficial ownership of Common Stock as of November 4, 2004, except as noted below, by the Directors and the Named Executive Officer and by the Directors and Named Executive Officer as a group.

Name and Address of Beneficial Owner(a)	Number of Shares and Nature of Beneficial Ownership(b)	Percent of Class
Certain Beneficial Owners:		
Monarch Pointe Fund, Ltd.	10,353,585	9.9
Judy M. Robinett	16,030,000(c)	15.3
Directors/Named Executive Officer:		
David R. Walker	1,153,539(d)	1.1
Judy M. Robinett	16,030,000(c)	15.3
Larry Anderson	250,000	.2
All Directors and Executive Officers as a Group (3 persons)	43,817,124(e)	41

* Less than 1%

(a) Unless otherwise indicated, the business address of each person listed is c/o Medical Discoveries, Inc., 1338 S. Foothill Drive, #266, Salt Lake City, Utah 84108.

(b) For purposes of this table, shares are considered to be beneficially owned if the person directly or indirectly has the sole or shared power to vote or direct the voting of the securities or the sole or shared power to dispose of or direct the disposition of the securities. Shares are also considered beneficially owned if a person has the right to acquire the beneficial ownership of the shares within 60 days of November 4, 2004. Unless otherwise indicated in these footnotes, each shareholder has sole voting and investment power with respect to the shares beneficially owned.

(c) Includes 16,000,000 shares that may be acquired upon the exercise of currently exercisable stock options.

(d) Includes 750,000 shares that may be acquired upon the exercise of currently exercisable stock options.

(e) Includes 16,750,000 shares that may be acquired upon the exercise of currently exercisable stock options and warrants.

DESCRIPTION OF SECURITIES

The following description of our authorized capital stock is subject to the detailed provisions of our Articles of Incorporation. Our Articles of Incorporation are included as Exhibit 2.1 to the registration statement.

The aggregate number of shares of capital stock authorized for issuance by our Articles of Incorporation is 300,000,000, of which 250,000,000 are shares of common stock, no par value, and 50,000,000 are shares of preferred stock, no par value.

Common Stock.

As of November 4, 2004, there were 104,581,669 shares of common stock issued and outstanding and 1,435 stockholders of record.

Dividend Rights. We have never declared or paid any cash dividends on our voting ordinary shares. Any future payment of dividends will be made at the discretion of our Board of Directors based upon conditions then existing, including earnings, financial condition and capital requirements as well as such economic and other conditions as our Board of Directors may deem relevant. Our By-Laws provide that the Board of Directors may, from time to time declare, and we may pay dividends on our outstanding shares in the manner and upon the terms and conditions provided by law.

Voting. Holders of our common stock are entitled to cast one vote in person or by proxy for each share of such common stock standing in his name on the stock transfer records of the Corporation. No shareholder has the right to cumulate votes in the election of directors. Currently, there are three members on our Board of Directors.

Dissolution Rights. In the event of any liquidation, dissolution or winding up of the affairs of the Company, after any preferential amount with respect to the Preferred Stock has been paid or reserved, the holders of Common Stock and the holders of any series of Preferred Stock entitled to participate in the distribution of assets are entitled to receive the net assets of the Company.

***Preemptive Rights*.** There are no preemptive rights authorized by our Articles of Incorporation or our By-Laws.

***Redemption*.** There are no redemption provisions applicable to our common stock.

Certain Provisions of the Articles of Incorporation. Our Articles of Incorporation provide that we may indemnify and advance expenses to its directors, officers, employees, fiduciaries or agents and to any person who is or was serving at the Corporation's request as a director, officer, partner, trustee, employee, fiduciary or agent of another domestic or foreign corporation or other person or of an employee benefit plan (and their respective estates or personal representatives) to the fullest extent as from time to time permitted by Utah law.

Preferred Stock.

As of November 4, 2004, there were 12,000 shares of Series A Convertible Preferred Stock issued and outstanding and another 30,000 shares pending issuance pursuant to a contingent subscription agreement.

Dividend Rights. The holders of Series A preferred stock are entitled to a dividend preference over other classes of capital stock.

Voting. The Series A preferred stock is non-voting.

Dissolution Rights. In the event of any liquidation, dissolution or winding up of the affairs of the Company, the holders of Series A preferred stock are entitled to a return of their original investment before the holders of Common Stock and the holders of any other series of Preferred Stock are entitled to receive the net assets of the Company.

Other Preferred Stock. Our Articles of Incorporation authorize the issuance of Preferred Stock in one or more series, from time to time, by the Board of Directors without further vote of the shareholders, except as may be provided for under applicable law or the rules of any stock exchange or other market system on

which the preferred tock may then be listed or traded. The rights of the Board of Directors to designate and issue specific series of Preferred Stock will include, without limitation, the right to determine or designate the following with respect to each series:

- The distinctive designation and number of shares comprising such series, which number may (except where otherwise provided by the Board of Directors in creating such series) be increased or decreased (but not below the number of shares then outstanding) from time to time by like action of the Board of Directors;
- The dividend rate of such series, the conditions and times upon which such dividends shall be payable, the relation which such dividends shall bear to the dividends payable on any other class or classes of stock or series thereof, or on the other series of the same class, and whether dividends shall be cumulative or noncumulative;
- The conditions upon which the shares of such series shall be subject to redemption by the Company and the times, prices and other terms and provisions upon which the shares of the series may be redeemed;
- Whether or not the shares of the series shall be subject to the operation of retirement or sinking fund provisions to be applied to the purchase or redemption of such shares and, if such retirement or sinking fund be established, the annual amount thereof and the terms and provisions relative to the operation thereof;
- Whether or not the shares of the series shall be convertible into or exchangeable for shares of any other class or classes, with or without par value, or of any other series of the same class and, if provision is made for conversion or exchange, the times, prices, rates, adjustments and other terms and conditions of such conversion or exchange;
- Whether or not the shares of the series shall have voting rights, in addition to the voting rights provided by law, and, if so, the terms of such voting rights;
- The rights of the shares of the series in the event of voluntary or involuntary liquidation, dissolution or upon distribution of assets of the Company; and
- Any other designations, preferences, limitations and relative rights of the shares of such series, as the Board of Directors may deem advisable.

LIMITATION OF LIABILITY AND INDEMNIFICATION

Our Articles of Incorporation provide that we will indemnify and advance expenses to our directors, officers, employees, fiduciaries or agents and to any person who is or was serving at our request as a director, officer, partner, trustee, employee, fiduciary or agent of another domestic or foreign corporation or other person or of an employee benefit plan (and their respective estates or personal representatives) to the fullest extent as from time to time permitted by Utah law. The personal liability of our directors and officers to us or our shareholders, or to any third person, will be eliminated or limited to the fullest extent as from time to time permitted by Utah law.

Our Bylaws provide that we shall indemnify any director or officer if a determination has been made that the director or officer acted in good faith, he or she reasonably believed that his or her conduct was in, or not opposed to, the Company's best interests. The Bylaws provide that we shall not indemnify a director or officer if the director or officer, in connection with any proceeding by or in the right of the Company in which he or she was adjudged liable to the Company or any other proceeding he or she was adjudged liable on the basis that he or she derived an improper benefit.

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

RELATED PARTY TRANSACTIONS

At September 30, 2004, we had accounts payable to our President and CEO totaling $879,136 for services performed and costs incurred in behalf of the Company. Also at September 30, 2004, we had an account payable to our bookkeeper of $91,161. We had notes payable to our stockholders aggregating $529,917 at September 30, 2004. Accrued interest payable recorded on these notes at September 30, 2004 was approximately $399,233.

DESCRIPTION OF BUSINESS

Medical Discoveries, Inc. was incorporated on November 20, 1991 as a Utah corporation and maintains its principal offices at 1338 S. Foothill Drive, #266, Salt Lake City, Utah 84108. Our telephone number is (801) 582-9583. We are a development-stage bio-pharmaceutical company engaged in the research, validation, development and ultimate commercialization of a patented anti-infective technology. Our electrolyzed solution of free radicals represents a novel approach to treating our initial target indications, Cystic Fibrosis and HIV. We plan in the near future to conclude our pre-clinical work and enter the clinic in our initial target indication.

Our product, called MDI-P, appears to have the ability to destroy certain viruses, bacteria and fungi without any associated toxicity both in animals and in cell-based assays. We are committed to the development of MDI-P as an anti-infective therapeutic product for in-vitro and in-vivo applications. Recently we announced that our clinical development objects have broadened to include Cystic Fibrosis as a lead indication, together with HIV. Our highest priority is to develop and commercialize MDI-P as a pharmaceutical for the treatment of HIV and Cystic Fibrosis. On November 1, 2004, we filed an Investigative New Drug application (IND) with the Food and Drug Administration (FDA) for MDI-P as a Cystic Fibrosis treatment. We plan to file an IND with the FDA for HIV in early 2005.

To date, we have not generated significant revenues from operations or realized a profit. Through September 30, 2004, we had incurred a cumulative net loss since inception of $18,070,007. We believe we have sufficient capital to complete Phase I trials for Cystic Fibrosis. We are currently attempting to secure capital commitments to finance HIV clinical trials, determine additional potential indications for MDI-P, and to otherwise continue research and testing of our technologies in order to secure required approvals to bring products to market. In that we are a development stage company, we will increasingly require additional funding to continue the development of our technology and to finance submittal of our testing and trials to the appropriate regulatory agencies in order to secure approvals for product development and sales.

Status of Publicly Announced Reports. On August 4, 2004, we announced that our clinical development objectives have been broadened to include Cystic Fibrosis (CF) as a lead indication, together with HIV. The decision to include CF as a co-lead indication for MDI-P found its genesis in the third in a series of pre-clinical research reports from Dr. Emil Chi, Chairman of the Department of Histopathology at the University of Washington Medical School. This trial, the results of which were announced on May 20, 2004, studied MDI-P as a potential therapeutic agent for the treatment of the symptoms of CF. Results from this study showed that, 48 hours after treatment, MDI-P-treated CF-like mice lungs evidenced: a) a 60% reduction in mucus secretion; b) a 49% reduction in white blood cellular infiltration; and c) a 42% reduction in lung edema, as contrasted with untreated CF-like mice. In MDI-P-treated mice, the associated level of lung hemorrhage was reduced by 39%, the level of neutrophil lung infiltration was reduced by 49%, and eosinophil lung infiltration was reduced by 86%, as contrasted with untreated CF-

like mice. The 100% MDI-P solution provided a 100% host-sparing effect against this fatal CF-like condition. No overt signs of toxicity were found in the primary organs (lungs, liver, spleen, kidneys, brain) of mice treated with MDI-P.

On August 10, 2004, we announced our receipt of a pharmacokinetics (PK) report, which studied the processes of bodily absorption, distribution, metabolism, and excretion (ADME) of in rabbits. Pharmacokinetics describes the time course of drug concentrations in plasma (and sometimes in other fluids and tissues) resulting from a particular dosing regimen. This study indicates that MDI-P has an average half-life in-vivo of 17.3 minutes, within a range of 10-20 minutes. Compared with most drugs, where the PK half-life thresholds typically range from many hours to days, this indicates that MDI-P's pathogen-killing activity is compressed within very short timeframes. Furthermore, because toxicity is frequently associated with long half-lives of drug residues in the liver, heart, brain and other vital organs, the truncated half-life of MDI-P has very favorable characteristics associated with lower toxicity profiles.

On August 17, 2004, we announced our receipt of a chronic toxicity study of MDI-P. Chronic toxicity studies test maximum dosages over longer timeframes in order to establish safety parameters for human usage and are required for any IND filings the Company makes. This study, when combined with our recently completed large mammal toxicology study, indicates that MDI-P is safe for use in humans under ICH guidelines, and appears non-toxic for use in human clinical trials. This report is consistent with the report we received on July 15, 2004, which was a large mammal toxicity report for MDI-P. The study found no sign of any toxicity from MDI-P in the anatomy, behavior, clinical chemical, hematological, or histopathological measures of adverse events.

On September 23, 2004, we reached an agreement with Dr. Henry R. Thompson, Director of the Cystic Fibrosis Program Therapeutics Center at Boise, Idaho's Cystic Fibrosis Clinic, located in St. Luke's Health Center, to serve as Project Manager and Principal Investigator for MDI's Phase I trials in late-term adult Cystic Fibrosis (CF) patients.

On October 6, 2004, we announced our receipt of the last in a series of research reports required by the FDA for the company's submission of an IND application in the fourth quarter for MDI-P in treating Cystic Fibrosis. The report focused on the use of MDI-P as an adjunct therapy to Tobramycin in pulmonary infection of juvenile New Zealand rabbits. The acute study, encompassing 25 rabbits in various study arms including saline control, showed that no inhibitory effects as a result of MDI-P occurred in rabbits also given Tobramycin, when administered intra-nasally in sequence with intra-nasal Tobramycin. When applied alone, Tobramycin showed satisfactory reduction in the extent of Pseudomonas aeruginosa pulmonary infection, as compared with saline control animals, and measured by broncheoaveolar lavage analysis of Pseudomonas aeruginosa infection from the rabbit lungs. When applied in sequence, both drugs also produced satisfactory reductions in infection.

Patents. Our patents and resulting intellectual properties now span more than a decade of research and development. We hold eight United States Patents, two Japanese patents and a Mexican patent on our core technologies. The US Patents are identified and have been awarded by the U.S. Patent Office under the following Notifications:

Patent No. 5,334,383
"Electrically Hydrolyzed Salines As In Vivo Microbicides For Treatment Of Cardiomyopathy And Multiple Sclerosis,"

Patent No. 5,507,932
"Apparatus For Electrolyzing Fluids,"

Patent No. 5,560,816
"Method For Electrolyzing Fluids,"

Patent No. 5,622,848
"Electrically Hydrolyzed Saline Solutions As Microbicides For In Vitro Treatment Of Contaminated Fluids Containing Blood,"

Patent No. 5,674,537
"An Electrolyzed Saline Solution Containing Concentrated Amounts Of Ozone And Chlorine Species,"

Patent No. 5,731,008
"Electrically Hydrolyzed Salines As Microbicides,"

Patent No. 6,007,686
"System For Electrolyzing Fluids For Use As Antimicrobial Agents,"

Patent No. 6,117,285
"System For Carrying Out Sterilization Of Equipment,"

Government Regulation. Our use of MDI-P in the treatment of HIV, Cystic Fibrosis and for other human or non-human uses is subject to extensive regulation by United States and foreign governmental authorities. In particular, pharmaceutical treatments are subject to rigorous pre-clinical and clinical testing and other approval requirements by the FDA in the United States under the federal Food, Drug and Cosmetic Act and by comparable agencies in most foreign countries. Various federal, state and foreign statutes also govern or influence the manufacture, labeling, storage, record keeping, and marketing of such products. Pharmaceutical manufacturing facilities are also regulated by state, local, and other authorities. Obtaining approval from the FDA and other regulatory authorities for a new drug or treatment may take several years and involve substantial expenditures. Moreover, ongoing compliance with these requirements can require the expenditure of substantial resources. Difficulties or unanticipated costs may be encountered by us in our efforts to secure necessary governmental approvals, which could delay or preclude us from marketing MDI-P.

Other product applications which may be developed for MDI-P could require regulatory approvals from other governmental agencies, such as the Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act and the Toxic Substances Control Act, and other present and potential federal, state and local regulations. These approvals can involve considerable money, time and effort and do not, in and of themselves, guarantee any commercial success for the product applications approved.

For more information about the governmental regulation with respect to our business, you should refer to the "Risk Factors" section of this prospectus.

Research and Development Expenditures. Our research and development efforts consist primarily of pre-clinical development of and preparing applications for regulatory approvals for MDI-P. During the fiscal year ended December 31, 2003, we spent $100,423 on research and development of MDI-P. For the During fiscal 2002, we had no research and development expenditures due to lack of funds. From inception through September 30, 2004, we have recorded $3,361,129 in research and development expenses.

Employees. We currently have no employees. Judy M. Robinett, MDI's President and CEO, is an independent contractor. We have engagements with a number of consultants for communications, investor relations, website development, accounting and other services. Over the past several years, our priority has been the advancement of our therapeutic technology through pre-clinical development and all capital resources have been devoted in that direction. At such time as capital resources permit, we will hire a full-time staff of employees.

Reports to Security Holders. We have filed with the Securities and Exchange Commission, a Registration Statement on Form SB-2 under the Securities Act of 1933 with respect to the common stock offered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules to the registration statement. For further information with respect to us and the common stock offered by this prospectus, reference is made to the registration statement and the exhibits and schedules filed as a part of the registration statement. Additionally, we file annual, quarterly and current reports, proxy statements and other documents with the Securities and Exchange Commission. You may read and copy any materials we file with the Securities and Exchange Commission at the Securities and Exchange Commission's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission also maintains a World Wide Web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of the Securities and Exchange Commission's Web site is http://www.sec.gov. You may also find more information about us, and any recent developments at our Web site at http://medicaldiscoveries.com.

MANAGEMENT'S PLAN OF OPERATION

Plan of Operation

Our Business and Strategy. Our highest priority is to complete our pre-clinical development, file an IND and begin the clinical development of MDI-P as a therapeutic regimen for the treatment of HIV and Cystic Fibrosis. On November 1, 2004, we filed an Investigative New Drug application (IND) with the Food and Drug Administration (FDA) for MDI-P as a Cystic Fibrosis treatment. We plan to file an IND with the FDA for HIV in early 2005.

Our second priority is the completion of a longer-range strategic business plan in which we utilize the intellectual property and analysis that has been developed over the last decade and determine an appropriate direction for future development of the business over the next five years. Some of the issues we will be dealing with will include:

- How to provide shareholders with liquidity, transparency and a return on investment
- A decision on whether or when to relocate the Company or maintain its current location
- A decision as to what staffing requirements the Company will have, when to bring additional permanent staff on board and the best route for recruiting those staff members
- Additional target indications and the formulation and development process required for those target indications
- A comprehensive intellectual property strategy
- A potential partnering strategy
- Projected long-term financing requirements

Liquidity and Capital Resources. As of September 30, 2004, we had $434,455 in cash and had a working capital deficit of $2,825,710. Since our inception, we have financed our operations primarily through private sales of equity and the issuance of convertible and non-convertible notes. We will require significant additional funding to continue to develop, research and seek regulatory approval of our technologies. In addition, we cannot survive, even in the near term, without immediate additional funding for operations. We do not currently generate any cash from operations and have no credit facilities in

place or available. Currently, we are funding operations through issuances of private equity and short-term loans from shareholders and others.

We are seeking to raise substantial additional funds in private stock offerings in order to meet our near-term and mid-term funding requirements. While we are optimistic that we can raise such funds, we have not always been successful in doing so in recent years. Given that we are still in an early development stage and do not have revenues from operations, raising equity financing is difficult. In addition, any additional equity financing will have a substantial dilutive effect to our current shareholders.

We believe we have sufficient capital on hand to complete Phase I clinical trials for Cystic Fibrosis once the FDA approves our IND. We also believe we have sufficient capital to file our IND for HIV.

Once an IND application for HIV is submitted, and assuming it is approved, we will need additional capital to initiate Phase I clinical trials. We estimate the cost to complete Phase I and Phase II clinical trials to be several million dollars per indication and the cost to complete Phase III testing and obtain approval of an NDA to be in the tens of millions of dollars per indication.

While our ability to obtain financing may improve in the event our IND application is approved, we cannot give assurances that we will have the access to the significant capital required to take a drug through regulatory approvals and to market. We may seek a partner in the global pharmaceutical industry to help us co-develop, license, or even purchase some or all of our technologies.

Management is basing this discussion and analysis of our financial condition and results of operations on our consolidated financial statements. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our critical accounting policies and estimates. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

DESCRIPTION OF PROPERTY

We do not currently own or lease any real property. Currently, we operate out of the President and CEO's home office. We do not pay any rent to the President and CEO. Over the past several years, our priority has been the advancement of our therapeutic technology through pre-clinical development and all capital resources have been devoted in that direction. At such time as capital resources permit, we will lease dedicated office and laboratory space.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Market Information. Our common stock is traded on the NASD OTC Bulletin Board under the symbol "MLSC." The following table sets forth the range of bid quotations for our common stock for the quarters indicated according to data provided by The NASDAQ Stock Market, Inc. Such quotations reflect inter-dealer prices, without retail mark-ups, markdowns or commissions, and may not represent actual transactions.

FISCAL YEAR ENDED DECEMBER 31, 2003	HIGH BID	LOW BID
First Quarter	$ 0.085	$ 0.035
Second Quarter	0.090	0.055
Third Quarter	0.075	0.045
Fourth Quarter	0.395	0.060

FISCAL YEAR ENDED DECEMBER 31, 2002	HIGH BID	LOW BID
First Quarter	$ 0.250	$ 0.095
Second Quarter	0.450	0.075
Third Quarter	0.105	0.035
Fourth Quarter	0.075	0.045

Shareholders. The approximate number of shareholders of record of our common stock as of November 4, 2004 was 1,435. This number does not include shareholders whose shares are held in securities position listings.

Dividends. We have never paid any cash dividends on our common stock and do not anticipate paying dividends in the foreseeable future. We presently intend to retain any future earnings for financing our growth and expansion.

Securities Authorized For Issuance Under Equity Compensation Plans. The following table contains information regarding our equity compensation plans as of December 31, 2003.

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (Excluding Securities Reflected in the First Column)
Equity compensation plans approved by security holders (1)	3,283,000	$ 0.13	-0-
Equity compensation plans not approved by security holders (2)	15,300,000	$ 0.02	4,700,000
Total	18,583,000	$ 0.04	4,700,000

(1) Consists of the 1993 Incentive Plan.

(2) Consists of the 2002 Stock Incentive Plan. A maximum of 20,000,000 shares of our common stock are authorized to be issued under the plan. This number is subject to adjustment in the case of certain changes in our capital structure. Moreover, shares subject to expired, terminated or canceled options or performance-based awards and shares forfeited to or repurchased by us will again be available for issuance under the plan. The plan is administered by the Board of Directors.

The plan provides for grants of incentive stock options, nonstatutory stock options, stock bonuses, restricted stock and performance-based awards to selected employees, officers, directors, non-employee agents, consultants and independent contractors of the Company or any parent or subsidiary of the Company. The plan will remain in effect until all shares available for issuance under the plan have been issued and all restrictions on outstanding shares have lapsed. The Board of Directors may suspend or terminate the plan early, however, except with respect to outstanding options, restricted stock and performance-based awards.

Options awarded under the plan are subject to vesting requirements. Generally, options awarded under the plan have a term of ten years, subject to acceleration in the event of termination, death or disability or a change of control of the Company, and the exercise price is equal to the fair market value on the date of grant. Shares of restricted stock are also subject to vesting requirements. Performance-based awards are intended to qualify as qualified performance-based compensation under Section 162(m) of the Internal Revenue Code.

Unregistered Sales of Securities. We sold the following unregistered securities in the past three years. None of the sales involved an underwriter. We believe these sales were exempt from registration pursuant to Section 4(2) of the Securities Act of 1933 because the sales did not involve a public offering.

- On September 9, 2004 and November 4, 2004, we completed $243,880 and $680,302, respectively, in equity financing through subscriptions for a total of 7,247,136 shares of restricted common stock by private investors.
- During the quarter ended June 30, 2004, we sold 4,900,000 shares of restricted common stock at $0.04 per share.
- During the quarter ended March 31, 2004, we sold 11,037,600 shares of restricted common stock at $0.04 per share.
- On October 8, 2003 through January 26, 2004, we sold 26,862,500 shares of restricted common stock at $0.04 per share to various private investors pursuant to a private placement, further terms of which are disclosed in Form D filed with the Commission.
- $195,000 secured promissory note dated February 20, 2003, bearing interest at the rate of 12%.
- $25,000 secured promissory note dated October 25, 2002, bearing interest at the rate of 15%, 12% of which is payable in cash and 3% of which is payable in common stock at a rate equal to the 15-day average market price determined at the date of maturity.
- $125,000 secured promissory note dated October 24, 2002, bearing interest at the rate of 15%, 12% of which is payable in cash and 3% of which is payable in common stock at a rate equal to the 15-day average market price determined at the date of maturity. This note has subsequently been retired.
- $50,000 secured promissory note dated October 24, 2002, bearing interest at the rate of 15%, 12% of which is payable in cash and 3% of which is payable in common stock at a rate equal to the 15-day average market price determined at the date of maturity.
- $50,000 unsecured convertible promissory note dated February 8, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.06 per share. This note was subsequently refinanced with a 15% interest rate.
- $50,000 unsecured convertible promissory note dated April 8, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.06 per share. This note was subsequently refinanced with a 15% interest rate.
- $50,000 unsecured convertible promissory note dated July 12, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.06 per share. This note was subsequently refinanced with a 15% interest rate.
- $50,000 unsecured convertible promissory note dated April 21, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.125 per share. This note was subsequently refinanced with a conversion rate of $0.06 per share.
- $55,000 unsecured convertible promissory note dated February 22, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.125 per share. This note was subsequently refinanced with a conversion rate of $0.06 per share.

- On December 20, 2001, the Company sold 160,000 shares of common stock to Ferret Resources at $0.15 per share for total proceeds of $24,000.

EXECUTIVE COMPENSATION

Director Compensation. Directors who are not officers of the Company do not receive any regular compensation for their service on the board of directors, and directors who are officers of the Company receive no additional compensation for their service as a director of the Company. Directors are entitled to receive compensation for services unrelated to their service as a director to the extent that they provide such unrelated services to the Company. See "Related Party Transactions" above.

Directors of the Company and its subsidiaries are entitled to participate in the Company's 2002 Stock Incentive Plan. During the year ended December 31, 2003, the Company granted options to purchase 300,000 shares of its Common Stock to its independent directors and granted options to purchase 14,500,000 shares of its Common Stock to its director who is also an officer of the Company.

Summary Compensation Table. The following table sets forth certain summary information concerning compensation paid by the Company to the President and Chief Executive Officer (the "Named Executive Officer") for the years ended December 31, 2003, 2002, and 2001. No other executive officer of the Company received a total annual salary and bonus in excess of $100,000 during the year ended December 31, 2003.

Name and Principal Position(s)	Year	Salary ($)(a)	Bonus ($)	Securities Underlying Options (#)
Judy M. Robinett	2003	220,000	—	14,500,000
President and Chief	2002	193,336	300,000	500,000
Executive Officer	2001	180,000	4,500(b)	1,000,000

(a) Represents total amounts accrued for the period, whether or not actually paid. As of December 31, 2003, the Company had a total payable to Ms. Robinett of $785,000. During the year ended December 31, 2003, Ms. Robinett was actually paid $60,000 by the Company.

(b) Represents value of 30,000 shares of common stock of the Company granted on April 20, 2001, based on the closing price of the stock that day ($0.15).

The following table sets forth certain summary information concerning options granted to the Named Executive Officer for the year ended December 31, 2003.

Options Granted in Last Fiscal Year

Name and Principal Position(s)	Number of Securities Underlying Options	Percent of Total Options Granted to Employees in Fiscal Year	Exercise Price ($/sh)	Market Price on Date of Grant ($/sh)	Expiration Date
Judy M. Robinett	500,000	100%	.01	.05	12/31/12
President and Chief Executive Officer	14,000,000	100%	.02	.075	10/27/13

The following table sets forth certain summary information concerning options exercised by the Named Executive Officer during 2003, and the value of options held by such person at December 31, 2003 measured in terms of the average sale price reported for Common Stock on December 31, 2003 ($.1475, as reported by OTC Bulletin Board).

Aggregate Option Exercises in 2003 and Option Values at 12/31/2003

Name	Shares Acquired on Exercise (#)	Value Realized ($)	Number of Securities Underlying Unexercised Options at December 31, 2003 (#) Exercisable/Unexercisable	Value of Unexercised In-the-Money Options at December 31, 2003 ($) Exercisable/Unexercisable
Judy M. Robinett	—	—	16,000,000/0	2,060,000/0

The Company has never granted any freestanding stock appreciation rights.

EXPERTS

Our financial statements included in this prospectus as of December 31, 2003 and for each of the two years then ended have been audited by Eide Bailey LLP (f/k/a Balukoff Lindstrom & Co., P.A.), independent certified public accountants, as stated in their report appearing elsewhere in this prospectus and in the registration statement, and are included in reliance upon that report given upon the authority of that firm as experts in accounting and auditing.

Item 7. ***Financial Statements***

FINANCIAL STATEMENT TABLE OF CONTENTS

[TO BE ADDED BY PRE-EFFECTIVE AMENDMENTS WITHIN 10 DAYS]

No dealer, salesman or other person is authorized to give any information or to make any representations not contained in this prospectus in connection with the offer made hereby, and, if given or made, such information or representations must not be relied upon as having been made by us.

This prospectus does not offer to sell or buy any securities in any jurisdiction where it is unlawful.

The information in this prospectus is current as of the date hereof. Neither the delivery of this prospectus nor any sale made hereunder shall create any implication that the information contained herein is correct as of any time subsequent to the date hereof.

113,511,158 shares common stock

Medical Discoveries, Inc.

Prospectus

December 22, 2004

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 24. Indemnification of Officers and Directors

Part 9 of the Utah Business Corporation Act empowers a corporation to indemnify its directors and officers, advance or reimburse expenses to its directors and officers, and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers. Such indemnification is permissible in certain situations and mandatory in other situations. In cases where indemnification or advancing or reimbursing of expenses is permissible, authorization and a determination of qualification must be made in each specific case. The Registrant's articles of incorporation and bylaws provide for the indemnification of its directors and officers to the fullest extent permitted by law.

Item 25. Other Expenses of Issuance and Distribution

The following table sets forth the various expenses of the offering, sale and distribution of the offered securities being registered pursuant to this registration statement (the "Registration Statement"). We will bear all of the expenses listed below. All of the amounts shown are estimates except the SEC registration fees.

Item	Amount
SEC registration fees	$ 2,760.01
Accounting and legal fees and expenses	$ 35,000
Printing expenses	$ 5,000
Miscellaneous expenses	$ 1,000
Total:	$43,760.01

Item 26. Recent Sales of Unregistered Securities

We sold the following unregistered securities in the past three years. None of the sales involved an underwriter. We believe these sales were exempt from registration pursuant to Section 4(2) of the Securities Act of 1933 because the sales did not involve a public offering.

- On September 9, 2004 and November 4, 2004, we completed $243,880 and $680,302, respectively, in equity financing through subscriptions for a total of 7,247,136 shares of restricted common stock by private investors.
- During the quarter ended June 30, 2004, we sold 4,900,000 shares of restricted common stock at $0.04 per share.
- During the quarter ended March 31, 2004, we sold 11,037,600 shares of restricted common stock at $0.04 per share.
- On October 8, 2003 through January 26, 2004, we sold 26,862,500 shares of restricted common stock at $0.04 per share to various private investors pursuant to a private placement, further terms of which are disclosed in Form D filed with the Commission.

- $195,000 secured promissory note dated February 20, 2003, bearing interest at the rate of 12%.
- $25,000 secured promissory note dated October 25, 2002, bearing interest at the rate of 15%, 12% of which is payable in cash and 3% of which is payable in common stock at a rate equal to the 15-day average market price determined at the date of maturity.
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- $50,000 unsecured convertible promissory note dated February 8, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.06 per share. This note was subsequently refinanced with a 15% interest rate.
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- $50,000 unsecured convertible promissory note dated July 12, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.06 per share. This note was subsequently refinanced with a 15% interest rate.
- $50,000 unsecured convertible promissory note dated April 21, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.125 per share. This note was subsequently refinanced with a conversion rate of $0.06 per share.
- $55,000 unsecured convertible promissory note dated February 22, 2002, bearing interest at the rate of 18%, convertible to common stock of the Company at the rate of $0.125 per share. This note was subsequently refinanced with a conversion rate of $0.06 per share.
- On December 20, 2001, the Company sold 160,000 shares of common stock to Ferret Resources at $0.15 per share for total proceeds of $24,000.

Item 27. Exhibits

The following exhibits required by Item 601 of Regulation S-B promulgated under the Securities Act have been included with the Registration Statement as indicated below.

Exhibit No.	Exhibit
3.1	Amended and Restated Articles of Incorporation of the Company (filed as Exhibit 3.1 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 1994, and incorporated herein by reference).
3.2	Amended Bylaws of the Company (filed as Exhibit 3.2 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 1994, and incorporated herein by reference).
4.1	Series A Preferred Stock Certificate of Rights and Preferences
4.2	Amendment to Series A Preferred Stock Certificate of Rights and Preferences
4.3	Registration Rights Agreement dated October 18, 2004 among Monarch Pointe Fund, Ltd, Mercator Advisory Group, LLC and Medical Discoveries, Inc.
4.4	Registration Rights Agreement dated December 3, 2004 among Mercator Momentum Fund, LP, Mercator Momentum Fund III, LP, Mercator Advisory Group, LLC and Medical Discoveries, Inc.
5.1	Opinion of Stoel Rives LLP*
10.1	2002 Stock Incentive Plan adopted by the Board of Directors as of July 11, 2002 (filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-QSB for the quarter ended June 30, 2002, and incorporated herein by reference).
23.1	Consent Eide Bailey LLP
23.2	Consent of Stoel Rives LLP

Item 28. Undertakings

The Registrant hereby undertakes:

(1) To file during any period in which offers or sales are being made, a post-effective amendment to this registration statement to:

(i) Include any prospectus required by Section 10(a)(3) of the Securities Act.

(ii) Reflect in the prospectus any facts or events that, individually or together, represent a fundamental change in the information. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) Include any additional or changed material information on the plan of distribution.

(2) That for determining liability under the Securities Act, to treat each post-effective amendment as a new registration statement of the securities offered, and the offering of the securities at that time to be the initial bona fide offering.

(3) To file a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.

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

SIGNATURES

In accordance with the requirements of the Securities Act, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form SB-2 and authorized this registration statement to be signed on its behalf by the undersigned, in Salt Lake City, Utah, on December 22, 2004.

Medical Discoveries, Inc.

By: /s/ Judy M. Robinett
Judy M. Robinett
President, Chief Executive Officer and principal financial officer

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Judy M. Robinett his or her attorney-in-fact and agent, with full power of substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments to this Registration Statement on Form SB-2, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection with this Registration Statement, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that any of said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

In accordance with the requirements of the Securities Act, this registration Statement was signed by the following persons in the capacities and on the dates stated:

/s/ Judy M. Robinett Judy M. Robinett	President, Chief Executive Officer and principal financial officer	December 22, 2004
/s/ David R. Walker David R. Walker	Chairman of the Board of Directors	December 22, 2004
/s/ Larry Anderson Larry Anderson	Director	December 22, 2004

EXHIBIT INDEX

Exhibit No.	Exhibit
3.1	Amended and Restated Articles of Incorporation of the Company (filed as Exhibit 3.1 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 1994, and incorporated herein by reference).
3.2	Amended Bylaws of the Company (filed as Exhibit 3.2 to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 1994, and incorporated herein by reference).
4.1	Certificate of Designations of Preferences and Rights of Series A Convertible Preferred Stock of Medical Discoveries, Inc.*
4.2	Amendment to Certificate of Designations of Preferences and Rights of Series A Convertible Preferred Stock of Medical Discoveries, Inc.*
4.3	Registration Rights Agreement dated October 18, 2004 among Monarch Pointe Fund, Ltd, Mercator Advisory Group, LLC and Medical Discoveries, Inc.*
4.4	Registration Rights Agreement dated December 3, 2004 among Mercator Momentum Fund, LP, Mercator Momentum Fund III, LP, Mercator Advisory Group, LLC and Medical Discoveries, Inc.*
5.1	Opinion of Stoel Rives LLP+
10.1	2002 Stock Incentive Plan adopted by the Board of Directors as of July 11, 2002 (filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-QSB for the quarter ended June 30, 2002, and incorporated herein by reference).
23.1	Consent Eide Bailey LLP+
23.2	Consent of Stoel Rives LLP+

* Filed herewith

\+ **[TO BE ADDED BY PRE-EFFECTIVE AMENDMENTS WITHIN 10 DAYS]**

CERTIFICATE OF DESIGNATIONS OF PREFERENCES AND RIGHTS OF
SERIES A CONVERTIBLE PREFERRED STOCK
OF
Medical Discoveries, Inc.
A Utah corporation

The undersigned, Judy M. Robinett and Stephen R. Drake certify that:

1. They are the duly acting President & CEO and Secretary, respectively, of Medical Discoveries, Inc. a corporation organized and existing under the laws of the State of Utah (the "Corporation").

2. Pursuant to authority conferred upon the Board of Directors by the Amended and Restated Articles of Incorporation of the Corporation, and pursuant to the provisions of Section 16-10a-821 of the Utah Revised Business Corporation Act, said Board of Directors, pursuant to a meeting held October 10, 2004, adopted a resolution establishing the rights, preferences, privileges and restrictions of, and the number of shares comprising, the Corporation's Series A Convertible Preferred Stock, which resolution is as follows:

RESOLVED, that a series of Preferred Stock in the Corporation, having the rights, preferences, privileges and restrictions, and the number of shares constituting such series and the designation of such series, set forth below be, and it hereby is, authorized by the Board of Directors of the Corporation pursuant to authority given by the Corporation's Amended and Restated Articles of Incorporation.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors hereby fixes and determines the determinations of, the number of shares constituting, and the rights, preferences, privileges and restrictions relating to, a new series of Preferred Stock as follows:

(a) Determination. The series of Preferred Stock is hereby designated Series A Convertible Preferred Stock (the "Series A Preferred Stock").

(b) Authorized Shares. The number of authorized shares constituting the Series A Preferred Stock shall be Twelve Thousand (12,000) shares of such series.

(c) Dividends. The holder of the Series A Preferred Stock shall be entitled to receive, when, as and if declared by the Board of Directors, out of any assets of the Corporation legally available therefore, such dividends as may be declared from time to time by the Board of Directors.

(d) Liquidation Preference.

(i) Preference upon Liquidation, Dissolution or Winding Up. In the event of any dissolution or winding up of the Corporation, whether voluntary or involuntary, holders of each outstanding share of Series A Preferred Stock shall be entitled to be paid first out of the assets of the Corporation available for distribution to shareholders, whether such assets are capital, surplus or earnings, an amount equal to $100.00 (the "Series A Purchase Price") per share of Series A Preferred Stock held (as adjusted for any stock splits, stock dividends or

recapitalizations of the Series A Preferred Stock) and any declared but unpaid dividends on such share, before any payment shall be made to the holders of the Common Stock, or any other stock of the Corporation ranking junior to the Series A Preferred Stock with regard to any distribution of assets upon liquidation, dissolution or winding up of the Corporation. The holders of the Series A Preferred Stock shall be entitled to share ratably, in accordance with the respective preferential amounts payable on such stock, in any distribution which is not sufficient to pay in full the aggregate of the amounts payable thereon. If, upon any liquidation, dissolution or winding up of the Corporation, the assets to be distributed to the holders of the Series A Preferred Stock shall be insufficient to permit payment to such shareholders of the full preferential amounts aforesaid, then all of the assets of the Corporation available for distribution to shareholders shall be distributed to the holders of Series A Preferred Stock. Each holder of the Series A Preferred Stock shall be entitled to receive that portion of the assets available for distribution as the number of outstanding shares of Series A Preferred Stock held by such holder bears to the total number of shares of Series A Preferred Stock. Such payment shall constitute payment in full to the holders of the Series A Preferred Stock upon the liquidation, dissolution or winding up of the Corporation. After such payment shall have been made in full, or funds necessary for such payment shall have been set aside by the Corporation in trust for the account of the holders of Series A Preferred Stock, so as to be available for such payment, such holders of Series A Preferred Stock shall be entitled to no further

participation in the distribution of the assets of the Corporation.

(ii) Consolidation, Merger and Other Corporation Events. A consolidation or merger of the Corporation (except into or with a subsidiary corporation) or a sale, lease, mortgage, pledge, exchange, transfer or other disposition of all or substantially all of the assets of the Corporation or any reclassification of the stock of the Corporation (other than a change in par value or from no par to par, or from par to no par or as the result of an event described in subsection (iv), (v), (vi) or (viii) of paragraph (f)), shall be regarded as a liquidation, dissolution or winding up of the affairs of the Corporation within the meaning of this paragraph (d), provided, however, in the case of a merger, if (a) the Corporation is the surviving entity, (b) the Corporation's shareholders hold a majority of the shares of the surviving entity, and (c) the Corporation's directors hold a majority of the seats on the board of directors of the surviving entity, then such merger shall not be regarded as a liquidation, dissolution or winding up within the meaning of this paragraph (d). In no event shall the issuance of new classes of stock, whether senior, junior or a parity with the Series A Preferred Stock, or any stock splits, be deemed a "reclassification" under or otherwise limited by the terms hereof.

(iii) Distribution of Cash and Other Assets. In the event of a liquidation, dissolution or winding up of the Corporation resulting in the availability of assets other than cash for distribution to the holders of the Series A Preferred Stock, the holders of the Series A Preferred Stock shall be entitled to a distribution of cash and/or assets equal to the value of the liquidation preference stated in subsection (i) of this paragraph (d), which valuation shall be made solely by the Board of Directors, and provided that such Board of Directors was acting in good faith, shall be conclusive.

(iv) Distribution to Junior Security Holders. After the payment or distribution to the holders of the Series A Preferred Stock of the full preferential amounts aforesaid, the holders of Series A Preferred Stock shall have no further rights in respect at such Series A Stock

which shall become null and void and the holders of the Common Stock then outstanding, or any other stock of the Corporation ranking as to assets upon liquidation, dissolution or winding up of the Corporation junior to the Series A Preferred Stock, shall be entitled to receive ratably all of the remaining assets of the Corporation.

(v) PREFERENCE; Priority. References to a stock that is "SENIOR" to, on a "PARITY" with or "JUNIOR" to other stock as to liquidation shall refer, respectively, to rights of priority of one series or class of stock over another in the distribution of assets on any liquidation, dissolution or winding up of the Corporation. The Series A Preferred Stock shall be senior to the Common Stock of the Corporation and senior to any subsequent series of Preferred Stock issued by the Corporation.

(e) Voting Rights. Except as otherwise required by law, the holder of shares of Series A Preferred Stock shall not have the right to vote on matters that come before the shareholders.

(f) Conversion Rights. The holders of Series A Preferred Stock will have the following conversion rights:

(i) Right to Convert. Subject to and in compliance with the provisions of this paragraph (f), any issued and outstanding shares of Series A Preferred Stock may, at the option of the holder, be converted at any time or from time to time into fully paid and non-assessable shares of Common Stock at the conversion rate in effect at the time of conversion, determined as provided herein; provided, that a holder of Series A Preferred Stock may at any given time convert only up to that number of shares of Series A Preferred Stock so that, upon conversion, the aggregate beneficial ownership of the Corporation's Common Stock (calculated pursuant to Rule 13d-3 of the Securities Exchange Act of 1934, as amended) of such holder and all persons affiliated with such holder is not more than 9.99% of the Corporation's Common Stock then outstanding.

(ii) Mechanics of Conversion. Before any holder of Series A Preferred Stock shall be entitled to convert the same into shares of Common Stock, he shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Common Stock, and shall give written notice to the Corporation at such office that he elects to convert the same and shall state therein the number of shares of Series A Preferred Stock being converted. Thereupon, the Corporation shall promptly issue and deliver at such office to such holder of Series A Preferred Stock a certificate or certificates for the number of shares of Common Stock to which he shall be entitled. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Series A Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date.

(iii) Conversion Price. The number of shares into which one share of Series A Preferred stock shall be convertible shall be determined by dividing the Series A Purchase Price by the then existing Conversion Price (as set forth below) (the "CONVERSION RATIO"). The "CONVERSION PRICE" per share for the Series A Preferred Stock shall be equal to eighty-five

percent (85%) of the Market Price (as defined below and subject to adjustment as described below), rounded to the nearest ten thousandth; provided, however, that subject to the provisions of the next sentence, in no event shall the Conversion Price be less than $0.05 per share (the "FLOOR PRICE") or exceed $0.1967 (the "CEILING PRICE"). The Floor Price and Ceiling Price shall be further adjusted upon the occurrence of any event in paragraph (f)(iv)-(vi).

For purposes of determining the Conversion Price, the "MARKET PRICE" shall be the average of the lowest three intra-day trading prices of the Corporation's Common Stock (which need not occur on consecutive trading days) during the 10 trading days immediately preceding the conversion date (which may include trading days prior to the original issue date), provided, that such 10 trading day period shall be extended by the number of trading days during such period on which (i) trading in the Corporation's Common Stock is suspended by, or not traded on, the OTC Bulletin Board or a subsequent market on which the common stock is then traded, or (ii) after the date of Registration Statement (the "REGISTRATION STATEMENT") for the underlying shares of common stock of the Corporation into which the Series A Preferred Stock may be converted is declared effective by the SEC, the prospectus included in the Registration Statement may not be used by the holder for resale of underlying shares of common stock, is suspended by, or not traded on, the OTC Bulletin Board or a subsequent market on which the common stock is then listed, or (iii) after the date the Registration Statement is declared effective by the SEC, the prospectus included in the Registration Statement for the underlying shares may not be used by the holder for the resale of underlying shares of common stock (provided such inability to use the prospectus is not (a) caused by the holder or (b) as a result of the Company's filing of post-effective amendments to the Registration Statement.)

For purposes of illustration only, assuming the Ceiling Price is $0.22 per share, if the Market Price is $0.40 at time of conversion, the Conversion Ratio will be $100.00/$0.22, allowing the 12,000 shares of Series A Preferred Stock to be converted into 5,454,545 shares of Common Stock.

If an Event of Default occurs, as defined in the Subscription Agreement for the Series A Preferred Stock, the Conversion Price shall be reduced to seventy-five percent (75%) of the Market Price, provided, however, in no event shall the Conversion Price be less than the Floor Price.

(iv) Adjustment for Stock Splits and Combinations. If the Corporation shall at any time, or from time to time after the date shares of the Series A Preferred Stock are first issued (the "ORIGINAL ISSUE DATE"), effect a subdivision of the outstanding Common Stock, the Floor Price and Ceiling Price in effect immediately prior thereto shall be proportionately decreased, and conversely, if the Corporation shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Floor Price and Ceiling Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph (f)(iv) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(v) Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time, or from time to time after the Original Issue Date, shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a

dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Floor Price and Ceiling Price then in effect shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Floor Price and Ceiling Price then in effect by a fraction:

(A) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(B) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, if such record date shall have been fixed and such dividend is not fully paid or if such

distribution is not fully made on the date fixed therefor, the Floor Price and Ceiling Price shall be recomputed accordingly as of the close of business on such record date and thereafter, the Floor Price and Ceiling Price shall be adjusted pursuant to this paragraph (f)(v) as of the time of actual payment of such dividends or distributions.

(vi) Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation other than shares of Common Stock, then and in each such event provision shall be made so that the holders of such Series A Preferred Stock shall receive upon conversion thereof in addition to the number of shares of Common Stock receivable thereupon, the amount of securities of the Corporation that they would have received had their Series A Preferred Stock been converted into Common Stock on the date of such event and had thereafter, during the period from the date of such event to and including the conversion date, retained such securities receivable by them as aforesaid during such period giving application to all adjustments called for during such period under this paragraph (f) with respect to the rights of the holders of the Series A Preferred Stock.

(vii) Adjustment for Reclassification Exchange or Substitution. If the Common Stock issuable upon the conversion of the Series A Preferred Stock shall be changed into the same or a different number of shares of any class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares or stock dividend provided for above, or a reorganization, merger, consolidation or sale of assets provided for elsewhere in this paragraph (f)), then and in each such event the holder of each share of Series A Preferred Stock shall have the right thereafter to convert such share into the kind and amount of shares of stock and other securities and property receivable upon such reorganization, reclassification or other change, by holders of the number of shares of Common Stock into which such shares of Series A Preferred Stock might have been converted immediately prior to such reorganization, reclassification, or change, all subject to further adjustment as provided herein.

(viii) Reorganization, Mergers, Consolidations or Sales of Assets. If at any time or from time to time there shall be a capital reorganization of the Common Stock (other than a

subdivision, combination, reclassification or exchange of shares provided for elsewhere in this paragraph (f)) or a merger or consolidation of the Corporation with or into another corporation, or the sale of all or substantially all of the Corporation's properties and assets to any other person, then, as a part of such reorganization, merger, consolidation or sale, provision shall be made so that the holders of the Series A Preferred Stock shall thereafter be entitled to receive upon conversion of such Series A Preferred Stock, the number of shares of stock or other securities or property of the Corporation or of the successor corporation resulting from such merger or consolidation or sale, to which a holder of Common Stock deliverable upon conversion would have been entitled on such capital reorganization, merger, consolidation or sale. In any such case, appropriate adjustment shall be made in the application of the provisions of this paragraph (f) with respect to the rights of the holders of the Series A Preferred Stock after the reorganization, merger, consolidation or sale to the end that the provisions of this paragraph (f) including adjustment of the Floor Price and Ceiling Price then in effect and the number of shares purchasable upon conversion of the Series A Preferred Stock) shall be applicable after that event as nearly equivalent as may be practicable.

(ix) Sale of Common Stock or Securities Convertible Into Common Stock. In the event the Corporation sells Common Stock or other securities convertible into or exerciseable for Common Stock at a per share price, exercise price or conversion price lower than the Conversion Price then in effect (other than in connection with an acquisition of the securities, assets or business of another company, joint ventures and employee stock options), the Conversion Price shall be subject to weighted average anti-dilution adjustments.

(x) Certificate of Adjustment. In each case of an adjustment or readjustment of the Floor Price and Ceiling Price or the securities issuable upon conversion of the Series A Preferred Stock, the Corporation shall compute such adjustment or readjustment in accordance herewith and the Corporation's Chief Financial Officer shall prepare and sign a certificate showing such adjustment or readjustment, and shall mail such certificate by first class mail, postage prepaid, to each registered holder of the Series A Preferred Stock at the holder's address as shown in the Corporation's books. The certificate shall set forth such adjustment or readjustment, showing in detail the facts upon which such adjustment or readjustment is based.

(xi) Notices of Record Date. In the event of (A) any taking by the Corporation of a record of the holders of any class or series of securities for

the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution or (B) any reclassification or recapitalization of the capital stock of the Corporation, any merger or consolidation of the Corporation or any transfer of all or substantially all of the assets of the Corporation to any other corporation, entity or person, or any voluntary or involuntary dissolution, liquidation or winding up of the Corporation, the Corporation shall mail to each holder of Series A Preferred Stock at least 10 days prior to the record date specified therein, a notice specifying (1) the date on which any such record is to be taken for the purpose of such dividend or distribution and a description of such dividend or distribution, (2) the date on which any such reorganization, reclassification, transfer, consolidation, merger, dissolution, liquidation or winding up is expected to become effective and (3) the time, if any is to be fixed, as to when the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares, of Common Stock (or other securities) for securities or other property deliverable upon

such reorganization, reclassification, transfer, consolidation, merger, dissolution, liquidation or winding up.

(xii) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Series A Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall round down to the nearest whole number.

(xiii) Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series A Preferred Stock, Twenty-Four Million (24,000,000) shares of Common Stock, and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of Series A Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

(xiv) Notices. Any notice required by the provisions of this paragraph (f) to be given to the holders of shares of Series A Preferred Stock shall be deemed given (A) if deposited in the United States mail, postage prepaid, or (B) if given by any other reliable or generally accepted means (including by facsimile or by a nationally recognized overnight courier service), in each case addressed to each holder of record at his address (or facsimile number) appearing on the books of the Corporation.

(xv) Payment of Taxes. The Corporation will pay all transfer taxes and other governmental charges that may be imposed in respect of the issue or delivery of shares of Common Stock upon conversion of shares of Series A Preferred Stock.

(xvi) No Dilution or Impairment. The Corporation shall not amend its Amended and Restated Articles of Incorporation or participate in any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, for the purpose of avoiding or seeking to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, without the approval of a majority of the then outstanding Series A Preferred Stock.

(g) No Re-issuance of Preferred Stock. Any shares of Series A Preferred Stock acquired by the Corporation by reason of purchase, conversion or otherwise shall be canceled, retired and eliminated from the shares of Series A Preferred Stock that the Corporation shall be authorized to issue. All such shares shall upon their cancellation become authorized but unissued shares of Preferred Stock and may be reissued as part of a new series of Preferred Stock subject to the conditions and restrictions on issuance set forth in the Amended and Restated Articles of Incorporation or in any certificate of determination creating a series of Preferred Stock or any similar stock or as otherwise required by law.

(h) Severability. If any right, preference or limitation of the Series A Preferred Stock set forth herein is invalid, unlawful or incapable of being enforced by reason of any rule, law or

public policy, all other rights, preferences and limitations set forth herein that can be given effect without the invalid, unlawful or unenforceable right, preference or limitation shall nevertheless remain in full force and effect, and no right, preference or limitation herein shall be deemed dependent upon any other such right, preference or limitation unless so expressed herein.

3. The number of authorized shares of Preferred Stock of the Corporation is 50,000,000, and the number of shares of Series A Stock, none of which has been issued, is 12,000.

Each of the undersigned declares under penalty of perjury that the matters set out in the foregoing Certificate are true of his or her own knowledge. Executed at _____, _____, on this _____ day of October, 2004.

/s/ Judy M. Robinett

Name: Judy M. Robinett
Title: President & CEO

/s/ Stephen R. Drake

Name: Stephen R. Drake
Title: Secretary

AMENDMENT TO
CERTIFICATE OF DESIGNATION OF PREFERENCES AND RIGHTS OF
SERIES A CONVERTIBLE PREFERRED STOCK
OF
MEDIAL DISCOVERIES, INC.
a Utah corporation

The undersigned, Judy M. Robinett and Stephen R. Drake certify that:

1. They are the duly acting President & CEO and Secretary, respectively, of Medical Discoveries, Inc. a corporation organized and existing under the laws of the State of Utah (the "CORPORATION").

Pursuant to authority conferred upon the Board of Directors by the Certificate of Incorporation of the Corporation, and pursuant to the provisions of Corporations Code of the State of Utah, said Board of Directors, pursuant to a meeting held on November 30, 2004, adopted a resolution amending the Certificate of Designations of Preferences and Rights of the Corporation's Series A Convertible Preferred Stock, as follows:

1. Section (b) Authorized Shares is deleted in its entirety and the following is inserted: "(b) Authorized Shares. The number of authorized shares constituting the Series A Preferred Stock shall be forty-two thousand (42,000) shares of such series."

2. Section (f)(iii) Conversion Price is deleted in its entirety and the following is inserted: "(f)(iii) Conversion Price. The number of shares into which one share of Series A Preferred Stock shall be convertible shall be determined by dividing the Series A Purchase Price by the then existing Conversion Price (as set forth below) (the "CONVERSION RATIO"). The "CONVERSION PRICE" per share for the Series A Preferred Stock shall be equal to eighty-five percent (85%) of the Market Price (as defined below and subject to adjustment as described below), rounded to the nearest ten thousandth; provided, however, that subject to the provisions of the next sentence, in no event shall the Conversion Price exceed $0.1967 (the "CEILING PRICE"). The Ceiling Price shall be further adjusted upon the occurrence of any event in paragraph (f)(i-v)-(vi)."

3. All references to Floor Price are hereby deleted.

4. In all other respects the Certificate of Designations shall remain unchanged and in full force and effect.

5. The undersigned represent and warrant that approval of the shareholders of Medical Discoveries, Inc., is not required for this Amendment.

Each of the undersigned declares under penalty of perjury that the matters set out in the foregoing Certificate are true of his own knowledge. Executed at _____, _____, on this __ day of December, 2004.

Signature Page to Follow

/s/ Judy M. Robinett

Name: Judy M. Robinett
Title: President & CEO

/s/ Stephen R. Drake

Name: Stephen R. Drake
Title: Secretary

EXHIBIT 4.3

REGISTRATION RIGHTS AGREEMENT

AGREEMENT dated as of October 18, 2004, between MONARCH POINTE FUND, LTD. (the "Fund") and MERCATOR ADVISORY GROUP, LLC ("MAG") (the Fund and MAG are referred to individually as a "Holder" and collectively as the "Holders"), and Medical Discoveries, Inc., a Utah corporation (the "Company").

WHEREAS, the Funds have purchased, for an aggregate of $1,200,000, an aggregate of 12,000 shares of Series A Convertible Preferred Stock (the "Series A Stock") from the Company, and have the right to cause their Series A Stock to be converted into shares of Common Stock, no par value (the "Common Stock"), of the Company, pursuant to the conversion formula set forth in the Certificate of Determination;

WHEREAS, each of Fund and MAG have acquired Warrants (together, the "Warrants") from the Company, pursuant to which the Holders have the right to purchase in the aggregate up to 4,575,496 shares of the Common Stock through the exercise of the Warrants;

WHEREAS, the Company desires to grant to the Holders the registration rights set forth herein with respect to the shares of Common Stock issuable upon the conversion of the Series A Stock and the exercise of the Warrants.

NOW, THEREFORE, the parties hereto mutually agree as follows:

1. REGISTRABLE SECURITIES. As used herein the terms "Registrable Security" means each of the shares of Common Stock (i) issued upon the conversion of the Series A Stock (the "Conversion Shares") or (ii) upon exercise of the Warrants (the "Warrant Shares"), provided, however, that with respect to any particular Registrable Security, such security shall cease to be a Registrable Security when, as of the date of determination that (a) it has been effectively registered under the Securities Act of 1933, as amended (the "Securities Act"), and disposed of pursuant thereto, or (b) registration under the Securities Act is no longer required for the immediate public distribution of such security. The term "Registrable Securities" means any and/or all of the securities falling within the foregoing definition of a "Registrable Security." In the event of any merger, reorganization, consolidation, recapitalization or other change in corporate structure affecting the Common Stock, such adjustment shall be made in the definition of "Registrable Security" as is appropriate in order to prevent any dilution or enlargement of the rights granted pursuant to this Section 1.

2. REGISTRATION.

(a) The Company shall file a registration statement (the "Registration Statement") with the Securities and Exchange Commission (the "SEC") within thirty (30) days after the date of this Agreement in order to register the resale of the Registrable Securities under the Securities Act. Once effective, the Company shall maintain the effectiveness of the Registration Statement until the earlier of (i) the date that all of the Registrable Securities have been sold, or (ii) the date that the Company receives an opinion of counsel to the Company that all of the Registrable Securities may be freely traded without registration under the Securities Act, under Rule 144 promulgated under the Securities Act or otherwise.

(b) The Company will initially include in the Registration Statement as Registrable Securities Twenty-Four Million (24,000,000) shares of Common Stock issuable upon conversion of the Series A Stock and the maximum number of shares of Common Stock issuable upon exercise of the Warrants.

3. COVENANTS OF THE COMPANY WITH RESPECT TO REGISTRATION.

The Company covenants and agrees as follows:

(a) The Company shall use best efforts to cause the Registration Statement to become effective with the SEC as promptly as possible and in no event more than 120 days after the date of this Agreement. If any stop order shall be issued by the SEC in connection therewith, the Company shall use best efforts to obtain promptly the removal of such order. Following the effective date of the Registration Statement, the Company shall, upon the request of any Holder, forthwith supply such reasonable number of copies of the Registration Statement, preliminary prospectus and prospectus meeting the requirements of the Securities Act, and any other documents necessary or incidental to the public offering of the Registrable Securities, as shall be reasonably requested by the Holder to permit the Holder to make a public distribution of the Holder's Registrable Securities. The obligations of the Company hereunder with respect to the Holder's Registrable Securities are subject to the Holder's furnishing to the Company such appropriate information concerning the Holder, the Holder's Registrable Securities and the terms of the Holder's offering of such Registrable Securities as the Company may reasonably request in writing.

(b) The Company shall pay all costs, fees and expenses in connection

with the Registration Statement filed pursuant to Section 2 hereof including, without limitation, the Company's legal and accounting fees, printing expenses, and blue sky fees and expenses; provided, however, that each Holder shall be solely responsible for the fees of any counsel retained by the Holder in connection with such registration and any transfer taxes or underwriting discounts, commissions or fees applicable to the Registrable Securities sold by the Holder pursuant thereto.

(c) The Company will take all actions which may be required to qualify or register the Registrable Securities included in the Registration Statement for the offer and sale under the securities or blue sky laws of such states as are reasonably requested by each Holder of such securities, provided that the Company shall not be obligated to execute or file any general consent to service of process or to qualify as a foreign corporation to do business under the laws of any such jurisdiction.

4. ADDITIONAL TERMS.

(a) The Company shall indemnify and hold harmless the Holders and each underwriter, within the meaning of the Securities Act, who may purchase from or sell for any Holder, any Registrable Securities, from and against any and all losses, claims, damages and liabilities caused by any untrue statement of a material fact contained in the Registration Statement, any other registration statement filed by the Company under the Securities Act with respect to the registration of the Registrable Securities, any post-effective amendment to such registration statements, or any prospectus included therein or caused by any omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as such losses, claims, damages or liabilities are caused by any such untrue statement or omission based upon information furnished or required to be furnished in writing to the Company by the Holders or underwriter expressly for use therein, which indemnification shall include each person, if any, who controls any Holder or underwriter within the meaning of the Securities Act and each officer, director, employee and agent of each Holder and underwriter; provided, however, that the indemnification in this Section 4(a) with respect to any prospectus shall not inure to the benefit of any Holder or underwriter (or to the benefit of any person controlling any Holder or underwriter) on account of any such loss, claim, damage or liability arising from the sale of Registrable Securities by the Holder or underwriter, if a copy of a subsequent prospectus correcting the untrue statement or omission in such earlier prospectus was provided to such Holder or underwriter by the Company prior to the subject sale and the subsequent prospectus was not delivered or sent by the Holder or underwriter to the purchaser prior to such sale and provided further, that the Company shall not be obligated to so indemnify any Holder or any such underwriter or other person referred to above unless the Holder or underwriter or other person, as the case may be, shall at the same time indemnify the Company, its directors, each officer signing the Registration Statement and each person, if any, who controls the Company within the meaning of the Securities Act, from and against any and all losses, claims, damages and liabilities caused by any untrue statement of a material fact contained in the Registration Statement, any registration statement or any prospectus required to be filed or furnished by reason of this Agreement or caused by any omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, insofar as such losses, claims, damages or liabilities are caused by any untrue statement or omission based upon information furnished in writing to the Company by the Holder or underwriter expressly for use therein.

(b) If for any reason the indemnification provided for in the preceding section is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, claim, damage, liability or expense referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall contribute to the amount paid or payable by the indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the

relative fault of the indemnified party and the indemnifying party, as well as any other relevant equitable considerations.

(c) Neither the filing of a Registration Statement by the Company pursuant to this Agreement nor the making of any request for prospectuses by the Holder shall impose upon any Holder any obligation to sell the Holder's Registrable Securities.

(d) Each Holder, upon receipt of notice from the Company that an event has occurred which requires a Post-Effective Amendment to the Registration Statement or a supplement to the prospectus included therein, shall promptly discontinue the sale of Registrable Securities until the Holder receives a copy of a supplemented or amended prospectus from the Company, which the Company shall provide as soon as practicable after such notice.

(e) If the Company fails to keep the Registration Statement referred to above continuously effective during the requisite period, then the Company shall, promptly upon the request of any Holder, use best efforts to update the

Registration Statement or file a new registration statement covering the Registrable Securities remaining unsold, subject to the terms and provisions hereof.

(f) Each Holder agrees to provide the Company with any information or undertakings reasonably requested by the Company in order for the Company to include any appropriate information concerning the Holder in the Registration Statement or in order to promote compliance by the Company or the Holder with the Securities Act.

(g) The Company agrees that it shall cause each of its directors, officers and shareholders owning ten percent (10%) or more of the Company's outstanding Common Stock to refrain from selling any shares of the Company's Common Stock until the Registration Statement has been declared effective.

(h) Each Holder, on behalf of itself and its affiliates, hereby covenants and agrees not to, directly or indirectly, offer to "short sell", contract to "short sell" or otherwise "short sell" any securities of the Company, including, without limitation, shares of Common Stock that will be received as a result of the conversion of the Series A Stock or the exercise of the Warrants.

5. GOVERNING LAW. The Registrable Securities will be, if and when issued, delivered in California. This Agreement shall be deemed to have been made and delivered in the State of California and shall be governed as to validity, interpretation, construction, effect and in all other respects by the internal substantive laws of the State of California, without giving effect to the choice of law rules thereof.

6. AMENDMENT. This Agreement may only be amended by a written instrument executed by the Company and the Holders.

7. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement of the parties hereto with respect to the subject matter hereof, and supersedes all prior

agreements and understandings of the parties, oral and written, with respect to the subject matter hereof.

8. EXECUTION IN COUNTERPARTS. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same document.

9. NOTICES. All communications hereunder shall be in writing and shall be hand delivered, mailed by first-class mail, couriered by next-day air courier or by facsimile at the addresses set forth below.

If to the Holders, Mercator Advisory Group, LLC
Mercator Momentum Fund, L.P.
Mercator Momentum Fund III, L.P.
Monarch Pointe Fund, Ltd.
555 South Flower Street, Suite 4500
Los Angeles, CA 90071
Attention: David Firestone

With a copy to Sheppard Mullin Richter & Hampton LLP
333 South Hope Street
48th Floor
Los Angeles, CA 90071-1448
Telephone No.: (213) 620-1780
Facsimile No.: (213) 620-1398
Attention: David C. Ulich

If to the Company, Medical Discoveries, Inc.
738 Aspenwood Lane
Twin Falls, Idaho 83301
Telephone No.: (208) 736-1799
Facsimile No.: (208) 733-5877
Attention: Judy M. Robinett

With a copy to Stoel Rives LLP
101 S. Capitol Blvd., Suite 1900
Boise, Idaho 83702
Telephone No.: (208) 389-9000
Facsimile No.: (208) 389-9040
Attention: Stephen R. Drake

All such notices and communications shall be deemed to have been duly given: (i) when delivered by hand, if personally delivered; (ii) five business days after being deposited in the mail, postage prepaid, if mailed certified mail, return receipt requested; (iii) one business day after being timely delivered to a next-day air courier guaranteeing overnight delivery; (iv) the date of transmission if sent via facsimile to the facsimile number as set forth in this Section or the signature page hereof prior to 4:00 p.m. on a business day, or

(v) the business day following the date of transmission if sent via facsimile at a facsimile number set forth in this Section or on the signature page hereof after 4:00 p.m. or on a date that is not a business day. Change of a party's address or facsimile number may be designated hereunder by giving notice to all of the other parties hereto in accordance with this Section.

10. BINDING EFFECT; BENEFITS. Any Holder may assign its rights hereunder. This Agreement shall inure to the benefit of, and be binding upon, the parties hereto and their respective heirs, legal representatives, successors and assigns. Nothing herein contained, express or implied, is intended to confer upon any person other than the parties hereto and their respective heirs, legal representatives and successors, any rights or remedies under or by reason of this Agreement.

11. HEADINGS. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Agreement.

12. SEVERABILITY. Any provision of this Agreement which is held by a court of competent jurisdiction to be prohibited or unenforceable in any jurisdiction(s) shall be, as to such jurisdiction(s), ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction.

13. JURISDICTION. Each of the parties irrevocably agrees that any and all suits or proceedings based on or arising under this Agreement may be brought only in and shall be resolved in the federal or state courts located in the City of Los Angeles, California and consents to the jurisdiction of such courts for such purpose. Each of the parties irrevocably waives the defense of an inconvenient forum to the maintenance of such suit or proceeding in any such court. Each of the parties further agrees that service of process upon such party mailed by first class mail to the address set forth in Section 9 shall be deemed in every respect effective service of process upon such party in any such suit or proceeding. Nothing herein shall affect the right of either party to serve process in any other manner permitted by law. Each of the parties agrees that a final non-appealable judgment in any such suit or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on such judgment or in any other lawful manner.

14. ATTORNEYS' FEES AND DISBURSEMENTS. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party or parties shall be entitled to receive from the other party or parties reasonable attorneys' fees and disbursements in addition to any other relief to which the prevailing party or parties may be entitled.

[The balance of this page is intentionally left blank.]

IN WITNESS WHEREOF, this Agreement has been executed and delivered by the parties hereto as of the date first above written.

MEDICAL DISCOVERIES, INC.

By: /s/ Judy M. Robinett

Name: Judy M. Robinett
Its: President & CEO

HOLDERS:

MONARCH POINTE FUND, LTD.

By: /s/ Harry Aharonian

Name: Harry Aharonian
Its: Director

MERCATOR ADVISORY GROUP, LLC

By: /s/ Harry Aharonian

Name: Harry Aharonian
Its: Portfolio Manager

EXHIBIT 4.4

REGISTRATION RIGHTS AGREEMENT

AGREEMENT dated as of December 3, 2004, between MERCATOR MOMENTUM FUND, LP, and MERCATOR MOMENTUM FUND III, LP. (collectively, the "Fund") and MERCATOR ADVISORY GROUP, LLC ("MAG") (the Fund and MAG are referred to individually as a "Holder" and collectively as the "Holders"), and Medical Discoveries, Inc., a Utah corporation (the "Company").

WHEREAS, the Funds have purchased, for an aggregate of $3,000,000, an aggregate of 30,000 shares of Series A Convertible Preferred Stock (the "Series A Stock") from the Company, and have the right to cause their Series A Stock to be converted into shares of Common Stock, no par value (the "Common Stock"), of the Company, pursuant to the conversion formula set forth in the Certificate of Determination;

WHEREAS, each of Fund and MAG have acquired Warrants (together, the "Warrants") from the Company, pursuant to which the Holders have the right to purchase in the aggregate up to 22,877,478 shares of the Common Stock through the exercise of the Warrants;

WHEREAS, the Company desires to grant to the Holders the registration rights set forth herein with respect to the shares of Common Stock issuable upon the conversion of the Series A Stock and the exercise of the Warrants.

NOW, THEREFORE, the parties hereto mutually agree as follows:

1. REGISTRABLE SECURITIES. As used herein the terms "Registrable Security" means each of the shares of Common Stock (i) issued upon the conversion of the Series A Stock (the "Conversion Shares") or (ii) upon exercise of the Warrants (the "Warrant Shares"), provided, however, that with respect to any particular Registrable Security, such security shall cease to be a Registrable Security when, as of the date of determination that (a) it has been effectively registered under the Securities Act of 1933, as amended (the "Securities Act"), and disposed of pursuant thereto, or (b) registration under the Securities Act is no longer required for the immediate public distribution of such security. The term "Registrable Securities" means any and/or all of the securities falling within the foregoing definition of a "Registrable Security." In the event of any merger, reorganization, consolidation, recapitalization or other change in corporate structure affecting the Common Stock, such adjustment shall be made in the definition of "Registrable Security" as is appropriate in order to prevent any dilution or enlargement of the rights granted pursuant to this Section 1.

2. REGISTRATION.

The Company shall file a registration statement (the "Registration Statement") with the Securities and Exchange Commission (the "SEC") on or before December 15, 2004, in order to register the resale of the Registrable Securities under the Securities Act. Once effective, the Company shall maintain the effectiveness of the Registration Statement until the earlier of

(i) the date that all of the Registrable Securities have been sold, or (ii) the date that the Company receives an opinion of counsel to the Company that all of the Registrable Securities may be freely traded without registration under the Securities Act, under Rule 144 promulgated under the Securities Act or otherwise.

The Company will initially include in the Registration Statement as Registrable Securities Eighty-Two Million Eight Hundred Seventy-Seven Thousand Four Hundred Seventy-Eight (82,877,478) shares of Common Stock issuable upon conversion of the Series A Stock and the maximum number of shares of Common Stock issuable upon exercise of the Warrants.

3. COVENANTS OF THE COMPANY WITH RESPECT TO REGISTRATION.

The Company covenants and agrees as follows:

The Company shall use best efforts to cause the Registration Statement to become effective with the SEC as promptly as possible and in no event more than 120 days after the date of this Agreement. If any stop order shall be issued by the SEC in connection therewith, the Company shall use best efforts to obtain promptly the removal of such order. Following the effective date of the Registration Statement, the Company shall, upon the request of any Holder, forthwith supply such reasonable number of copies of the Registration Statement,

preliminary prospectus and prospectus meeting the requirements of the Securities Act, and any other documents necessary or incidental to the public offering of the Registrable Securities, as shall be reasonably requested by the Holder to permit the Holder to make a public distribution of the Holder's Registrable Securities. The obligations of the Company hereunder with respect to the Holder's Registrable Securities are subject to the Holder's furnishing to the Company such appropriate information concerning the Holder, the Holder's Registrable Securities and the terms of the Holder's offering of such Registrable Securities as the Company may reasonably request in writing.

The Company shall pay all costs, fees and expenses in connection with the Registration Statement filed pursuant to Section 2 hereof including, without limitation, the Company's legal and accounting fees, printing expenses, and blue sky fees and expenses; provided, however, that each Holder shall be solely responsible for the fees of any counsel retained by the Holder in connection with such registration and any transfer taxes or underwriting discounts, commissions or fees applicable to the Registrable Securities sold by the Holder pursuant thereto.

The Company will take all actions which may be required to qualify or register the Registrable Securities included in the Registration Statement for the offer and sale under the securities or blue sky laws of such states as are reasonably requested by each Holder of such securities, provided that the Company shall not be obligated to execute or file any general consent to service of process or to qualify as a foreign corporation to do business under the laws of any such jurisdiction.

4. ADDITIONAL TERMS.

The Company shall indemnify and hold harmless the Holders and each underwriter, within the meaning of the Securities Act, who may purchase from or sell for any Holder, any Registrable Securities, from and against any and all losses, claims, damages and liabilities caused by any untrue statement of a material fact contained in the Registration Statement, any other registration statement filed by the Company under the Securities Act with respect to the registration of the Registrable Securities, any post-effective amendment to such registration statements, or any prospectus included therein or caused by any omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as such losses, claims, damages or liabilities are caused by any such untrue statement or omission based upon information furnished or required to be furnished in writing to the Company by the Holders or underwriter expressly for use therein, which indemnification shall include each person, if any, who controls any Holder or underwriter within the meaning of the Securities Act and each officer, director, employee and agent of each Holder and underwriter; provided, however, that the indemnification in this Section 4(a) with respect to any prospectus shall not inure to the benefit of any Holder or underwriter (or to the benefit of any person controlling any Holder or underwriter) on account of any such loss, claim, damage or liability arising from the sale of Registrable Securities by the Holder or underwriter, if a copy of a subsequent prospectus correcting the untrue statement or omission in such earlier prospectus was provided to such Holder or underwriter by the Company prior to the subject sale and the subsequent prospectus was not delivered or sent by the Holder or underwriter to the purchaser prior to such sale and provided further, that the Company shall not be obligated to so indemnify any Holder or any such underwriter or other person referred to above unless the Holder or underwriter or other person, as the case may be, shall at the same time indemnify the Company, its directors, each officer signing the Registration Statement and each person, if any, who controls the Company within the meaning of the Securities Act, from and against any and all losses, claims, damages and liabilities caused by any untrue statement of a material fact contained in the Registration Statement, any registration statement or any prospectus required to be filed or furnished by reason of this Agreement or caused by any omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, insofar as such losses, claims, damages or liabilities are caused by any untrue statement or omission based upon information furnished in writing to the Company by the Holder or underwriter expressly for use therein.

If for any reason the indemnification provided for in the preceding section is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, claim, damage, liability or expense referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall contribute to the amount paid or payable by the indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnified party and the indemnifying party, as well as any other relevant equitable considerations.

Neither the filing of a Registration Statement by the Company pursuant to this Agreement nor the making of any request for prospectuses by the

Holder shall impose upon any Holder any obligation to sell the Holder's Registrable Securities.

Each Holder, upon receipt of notice from the Company that an event has occurred which requires a Post-Effective Amendment to the Registration Statement or a supplement to the prospectus included therein, shall promptly discontinue the sale of Registrable Securities until the Holder receives a copy of a supplemented or amended prospectus from the Company, which the Company shall provide as soon as practicable after such notice.

If the Company fails to keep the Registration Statement referred to above continuously effective during the requisite period, then the Company shall, promptly upon the request of any Holder, use best efforts to update the Registration Statement or file a new registration statement covering the Registrable Securities remaining unsold, subject to the terms and provisions hereof.

Each Holder agrees to provide the Company with any information or undertakings reasonably requested by the Company in order for the Company to include any appropriate information concerning the Holder in the Registration Statement or in order to promote compliance by the Company or the Holder with the Securities Act.

(g) The Company agrees that it shall cause each of its directors, officers and shareholders owning ten percent (10%) or more of the Company's outstanding Common Stock to refrain from selling any shares of the Company's Common Stock until the Registration Statement has been declared effective.

(h) Each Holder, on behalf of itself and its affiliates, hereby covenants and agrees not to, directly or indirectly, offer to "short sell", contract to "short sell" or otherwise "short sell" any securities of the Company, including, without limitation, shares of Common Stock that will be received as a result of the conversion of the Series A Stock or the exercise of the Warrants.

5. GOVERNING LAW. The Registrable Securities will be, if and when issued, delivered in California. This Agreement shall be deemed to have been made and delivered in the State of California and shall be governed as to validity, interpretation, construction, effect and in all other respects by the internal substantive laws of the State of California, without giving effect to the choice of law rules thereof.

6. AMENDMENT. This Agreement may only be amended by a written instrument executed by the Company and the Holders.

7. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement of the parties hereto with respect to the subject matter hereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof.

8. EXECUTION IN COUNTERPARTS. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same document.

9. NOTICES. All communications hereunder shall be in writing and shall be hand delivered, mailed by first-class mail, couriered by next-day air courier or by facsimile at the addresses set forth below.

If to the Holders, Mercator Advisory Group, LLC
Mercator Momentum Fund, L.P.
Mercator Momentum Fund III, L.P.
Monarch Pointe Fund, Ltd.
555 South Flower Street, Suite 4500
Los Angeles, CA 90071
Attention: David Firestone

With a copy to Sheppard Mullin Richter & Hampton LLP
333 South Hope Street
48th Floor
Los Angeles, CA 90071-1448
Telephone No.: (213) 620-1780
Facsimile No.: (213) 620-1398
Attention: David C. Ulich

If to the Company, Medical Discoveries, Inc.
738 Aspenwood Lane
Twin Falls, Idaho 83301

Telephone No.: (208) 736-1799
Facsimile No.: (208) 733-5877
Attention: Judy M. Robinett

With a copy to Stoel Rives LLP
101 S. Capitol Blvd., Suite 1900
Boise, Idaho 83702
Telephone No.: (208) 389-9000
Facsimile No.: (208) 389-9040
Attention: Stephen R. Drake

All such notices and communications shall be deemed to have been duly given: (i) when delivered by hand, if personally delivered; (ii) five business days after being deposited in the mail, postage prepaid, if mailed certified mail, return receipt requested; (iii) one business day after being timely delivered to a next-day air courier guaranteeing overnight delivery; (iv) the date of transmission if sent via facsimile to the facsimile number as set forth in this Section or the signature page hereof prior to 4:00 p.m. on a business day, or (v) the business day following the date of transmission if sent via facsimile at a facsimile number set forth in this Section or on the signature page hereof after 4:00 p.m. or on a date that is not a business day. Change of a party's address or facsimile number may be designated hereunder by giving notice to all of the other parties hereto in accordance with this Section.

10. BINDING EFFECT; BENEFITS. Any Holder may assign its rights hereunder. This Agreement shall inure to the benefit of, and be binding upon, the parties hereto and their respective heirs, legal representatives, successors and assigns. Nothing herein contained, express or implied, is intended to confer upon any person other than the parties hereto and their respective heirs, legal representatives and successors, any rights or remedies under or by reason of this Agreement.

11. HEADINGS. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Agreement.

12. SEVERABILITY. Any provision of this Agreement which is held by a court of competent jurisdiction to be prohibited or unenforceable in any jurisdiction(s) shall be, as to such jurisdiction(s), ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction.

13. JURISDICTION. Each of the parties irrevocably agrees that any and all suits or proceedings based on or arising under this Agreement may be brought only in and shall be resolved in the federal or state courts located in the City of Los Angeles, California and consents to the jurisdiction of such courts for such purpose. Each of the parties irrevocably waives the defense of an inconvenient forum to the maintenance of such suit or proceeding in any such court. Each of the parties further agrees that service of process upon such party mailed by first class mail to the address set forth in Section 9 shall be deemed in every respect effective service of process upon such party in any such suit or proceeding. Nothing herein shall affect the right of either party to serve process in any other manner permitted by law. Each of the parties agrees that a final non-appealable judgment in any such suit or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on such judgment or in any other lawful manner.

14. ATTORNEYS' FEES AND DISBURSEMENTS. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party or parties shall be entitled to receive from the other party or parties reasonable attorneys' fees and disbursements in addition to any other relief to which the prevailing party or parties may be entitled.

[The balance of this page is intentionally left blank.]

IN WITNESS WHEREOF, this Agreement has been executed and delivered by the parties hereto as of the date first above written.

MEDICAL DISCOVERIES, INC.

By:_____
Name: Judy M. Robinett
Its: President & CEO

HOLDERS:

MERCATOR MOMENTUM FUND, LP

By: Mercator Advisory Group, LLC
Its: General Partner

By:_____
Name: David Firestone
Its: Managing Member

MERCATOR MOMENTUM FUND III, LP

By: Mercator Advisory Group, LLC
Its: General Partner

By:_____
Name: David Firestone
Its: Managing Member

MERCATOR ADVISORY GROUP, LLC

By:_____
Name: David Firestone
Its: Managing Member