
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

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

March 18, 2004

(Date of earliest event reported)

MEDICAL DISCOVERIES, INC.

(Exact name of registrant as specified in its charter)

<u>Utah</u>	<u>0-12627</u>	<u>87-0407858</u>
(State or other jurisdiction of incorporation or organization)	(Commission File No.)	(I.R.S. Employer Identification No.)

738 Aspenwood Lane
Twin Falls, Idaho 83301
(208) 736-1799

(Address of principal executive offices and telephone number, including area code)

TABLE OF CONTENTS

[Item 9. Regulation FD Disclosure](#)

[SIGNATURES](#)

[INDEX OF EXHIBITS](#)

[EXHIBIT 99](#)

Item 9. Regulation FD Disclosure

This Current Report on Form 8-K is filed for the purpose of disclosing the press release that was released on March 18, 2004 and is attached hereto as Exhibit 99.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

MEDICAL DISCOVERIES, INC.

/s/ Judy M. Robinett

Judy M. Robinett

President and Chief Executive Officer Date:

March 18, 2004

INDEX OF EXHIBITS

Number	Description
99	Press Release issued March 18, 2004

**MEDICAL DISCOVERIES, INC. ANNOUNCES RECEIPT OF
SEPSIS PRE-CLINICAL REPORT ON MDI-P**

Latest Research Documents Low Toxicity Profile

TWIN FALLS, IDAHO, March 18, 2004 — Medical Discoveries, Inc. (OTC-BB as MLSC) announced its receipt of the first in a series of pre-clinical reports from Dr. Emil Chi, Chairman of the Department of Histopathology at the University of Washington Medical School. This trial, one of several studies on models of infectious diseases mimicking human infectious disease, focused on MDI-P as a potential therapeutic agent for the treatment of sepsis. The results reaffirmed the anti-infective strength and low toxicity profile in preclinical models of MDI's patented solution, MDI-P.

The novel drug was applied to a mouse model of sepsis, to examine any effect on this fatal bacterial infection. Sepsis is an infection of the internal organs and generally occurs in patients during prolonged hospital stays for surgery, pneumonia, or for treatment of wounds. This infection carries a high risk of leading to septic shock of the internal organs and death of the patient who has been infected. Sepsis is a leading cause of death in intensive care units worldwide.

In this study, the goal was to test the efficacy of MDI-P in inhibiting inflammatory responses induced in mice by the *Pseudomonas aeruginosa* bacterium that frequently causes sepsis. The study used 25%, 50% and 100% MDI-P solutions to examine inhibition of inflammatory processes, as it is these processes that generally lead to widespread bacteremia, followed potentially by septic shock. MDI-P was compared against both a saline control group of mice, as well as a positive control group of mice that had been given a powerful antibiotic, Gentamicin, an established treatment for sepsis in pre-clinical studies.

The study confirmed that the 100% dose strength of MDI-P offered substantial benefit to the mice when compared both to placebo and a 50% survival effect comparable to Gentamicin, but

without the apparent toxicity profile that Gentamicin exhibits. All doses of MDI-P provided substantial benefit in reducing inflammatory response of the bacterimia, but only the 100% strength provided a host-sparing effect.

MDI's Chief Executive Officer, Judy Robinett, commented: "We are pleased that MDI-P, our patented solution, continues to show powerful anti-infective characteristics without associated toxicities, both in-vivo and in-vitro. This report, in addition to other preclinical reports and our CMC/CGMP data, will allow us to file an IND with the FDA for our initial target indication, HIV, and enter clinical trials sometime late in 2004 or early in 2005, continuing the path to commercialization."

Formed in 1991, Medical Discoveries, Inc. is a publicly traded (OTC Bulletin Board: MLSC) development-stage biopharmaceutical research company (as defined in SFAS No.7) engaged in the research, development and validation of its patented anti-infective technology. MDI's electrolyzed solution of free radicals represents a novel approach to treating its initial target indication, HIV.

Information in this press release relating to the potential of MDI constitutes forward-looking statements. Actual results in future periods may differ materially from the forward-looking statements because of a number of risks and uncertainties, including but not limited to: MDI's lack of significant operating revenue to date; MDI's need for substantial and immediate additional capital; the fact that MDI may dilute existing shareholders through additional stock issuances; the extensive governmental regulation to which MDI is subject; the fact that MDI's technologies remain unproven; the intense competition MDI faces from other companies and other products; and MDI's reliance upon patents and other intellectual property that may not provide meaningful protection against competitors. Additional information about these and other factors that could affect MDI's business is set forth in MDI's 2002 Annual Report on Form 10-KSB and other filings with the Securities and Exchange Commission.

###