UNITED STATES 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

Date of Report: October 2, 2009 (Date of earliest event reported)

ENTEROMEDICS INC.

(Exact name of registrant as specified in its charter)

Commission File Number: 1-33818

Delaware (State or other jurisdiction of incorporation) 48-1293684 (IRS Employer Identification No.)

2800 Patton Road, St. Paul, Minnesota 55113 (Address of principal executive offices, including zip code)

(651) 634-3003

(Registrant's telephone number, including area code)

Not Applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Dere-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Dere-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 7.01 Regulation FD Disclosure

On October 2, 2009, EnteroMedics Inc. (the "Company") issued a press release announcing the preliminary results of its EMPOWER trial. The Company will host a conference call to discuss the preliminary EMPOWER results at 8:30 a.m. Eastern Time on October 2, 2009. A copy of this press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

The information furnished herewith pursuant to Item 7.01 of this Current Report and in Exhibit 99.1 hereto is being "furnished" in accordance with General Instruction B.2 of Form 8-K and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed to be incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No. Description

99.1 Press Release dated October 2, 2009.

SIGNATURE

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 hereunto duly authorized.

ENTEROMEDICS INC.

By: /S/ GREG S. LEA Greg S. Lea Senior Vice President and Chief Financial Officer

Date: October 2, 2009

EXHIBIT INDEX

Exhibit No.Description99.1Press Release dated October 2, 2009.



Contact: EnteroMedics Inc. Greg S. Lea (651) 789-2860 ir@enteromedics.com

EnteroMedics Announces Preliminary Results of its EMPOWER Study

- Conference Call Scheduled for Today at 8:30 AM Eastern Time -

ST. PAUL, Minn., October 2, 2009 — EnteroMedics Inc. (NASDAQ: ETRM), the developer of medical devices using neuroblocking technology to treat obesity and other gastrointestinal disorders, today announced preliminary results from its EMPOWER Study. Based on an initial analysis, the study did not meet its primary and secondary efficacy endpoints. There were no therapy-related serious adverse events reported in the study. The EMPOWER Study is a randomized, double-blind, placebo-controlled pivotal study designed to evaluate the safety and effectiveness of the Maestro[®] System for the treatment of obesity.

"We are disappointed in the preliminary findings and plan to undertake a thorough analysis of the study data," stated Mark B. Knudson, Ph.D., President and Chief Executive Officer of EnteroMedics. "The analysis will help us to determine the most appropriate path forward for the Maestro System in obesity and other possible indications."

Conference Call and Webcast

EnteroMedics management will host a conference call to discuss the EMPOWER trial results today, October 2, 2009 at 8:30 AM Eastern Time. The conference call may be accessed by dialing 800-406-5356 for domestic callers and 913-312-0701 for international callers and providing passcode 4647421. A replay of the call will be available from October 2, 2009 at 11:30 AM Eastern Time through November 1, 2009 by dialing 888-203-1112 and providing passcode 4647421.

The conference call will be webcast live under the investor relations section of EnteroMedics website at www.enteromedics.com, and will be archived there for 30 days following the call. Please connect to EnteroMedics' website several minutes prior to the start of the broadcast to ensure adequate time for any software download that may be necessary.

Forward-Looking Safe Harbor Statement:

This press release contains forward-looking statements about EnteroMedics Inc. Our actual results could differ materially from those discussed due to known and unknown risks, uncertainties and other factors including our limited history of operations, our losses since inception and for the foreseeable future; our lack of regulatory approval for our Maestro® System for the treatment of obesity; our preliminary findings from our EMPOWER™ pivotal trial; our ability to commercialize our Maestro System; our dependence on third parties to initiate and perform our clinical trials; the need to obtain regulatory approval for any modifications to our Maestro System; physician adoption of our Maestro System and VBLOC® vagal blocking therapy; our ability to obtain third party coding, coverage or payment levels; ongoing regulatory compliance; our dependence on third party manufacturers and suppliers; the successful development of our sales and marketing capabilities; our ability to raise additional capital when needed; our ability to attract and retain management and other personnel and to manage our growth effectively; potential product liability claims; potential healthcare fraud and abuse claims; potential healthcare legislative reform and our ability to obtain and maintain intellectual property protection for our technology and products. These and additional risks and uncertainties are described more fully in the Company's filings with the Securities and Exchange Commission, particularly those factors identified as "risk factors" in the Company's Form 10-K dated March 12, 2009. We are providing this information as of the date of this press release and do not undertake any obligation to update any forward-looking statements contained in this document as a result of new information, future events or otherwise.

Caution-Investigational device. Limited by U.S. Federal law to investigational use.

The implantation procedure and usage of the Maestro[®] System carry some risks, such as the risk generally associated with laparoscopic procedures and those related to treatment as described in the EMPOWER clinical trial informed consent.

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