UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

| FORM 8-K | |
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| | |

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report: April 23, 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) | | | | |
| | Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)) | | | | |
| _ | Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240 13e-4(c)) | | | | |

Item 2.02. Results of Operations and Financial Condition.

Furnished herewith as Exhibit 99.1 and incorporated by reference herein is the text of EnteroMedics Inc.'s press release regarding its financial results for the quarter ended March 31, 2009.

The information furnished herewith pursuant to Item 2.02 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.

99.1

Exhibit No. Description

Press release, dated April 23, 2009, entitled "EnteroMedics Reports First Quarter 2009 Financial Results."

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: April 23, 2009

EXHIBIT INDEX

Exhibit No. 99.1 Description
Press release, dated April 23, 2009, entitled "EnteroMedics Reports First Quarter 2009 Financial Results."



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

EnteroMedics Reports First Quarter 2009 Financial Results

ST. PAUL, Minnesota, April 23, 2009 – EnteroMedics Inc. (NASDAQ: ETRM), the developer of medical devices using neuroblocking technology to treat obesity and other gastrointestinal disorders, announced today its financial results for the first quarter ended March 31, 2009.

The Company reported a net loss of \$6.7 million, or \$0.30 per share, research and development expenses of \$3.8 million, and selling, general and administrative expenses of \$1.9 million for the quarter. Expenses were primarily associated with the cost of supporting the Company's multiple, ongoing clinical trials as well as the continued development of VBLOC® vagal blocking therapy delivered through the Company's Maestro® System. At the end of the quarter, the Company's cash, cash equivalents and short-term investments totaled \$35.2 million.

"We are pleased with the progress made in our clinical trials and in the Company's finances this quarter," said President and CEO Mark B. Knudson, Ph.D. "In January, we presented 18-month excess weight loss data from our feasibility study that provided further data in support of our EMPOWER™ pivotal study endpoints. These data also supported our efforts to raise over \$15 million in a private placement that closed in February 2009. This financing was an important step toward commercialization of the Maestro System and a vote of confidence in the potential value of our technology."

Gregory S. Lea, Senior Vice President and Chief Financial Officer of EnteroMedics added: "The Company remains well funded as we move towards our objective of reporting top-line data from the EMPOWER study in the second half of this year."

About EnteroMedics Inc.

EnteroMedics is a development stage medical device company focused on the design and development of devices that use neuroblocking technology to treat obesity and other gastrointestinal disorders. EnteroMedics' proprietary neuroblocking technology, VBLOC® vagal blocking therapy, is designed to intermittently block the vagus nerves using high-frequency, low-energy, electrical impulses. EnteroMedics has met its enrollment goal under an FDA-approved

Investigational Device Exemption (IDE) for the EMPOWER™ Study using the Maestro® System, its initial product for the treatment of obesity. EnteroMedics is currently recruiting patients outside of the United States for a feasibility study examining VBLOC Therapy's effects on blood glucose levels in diabetic patients. For more information, visit www.enteromedics.com.

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 inability to complete our EMPOWER™ pivotal trial and other clinical trials, or significant delays in the completion of our clinical trials; our ability to timely 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; 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 $^{\text{TM}}$ clinical trial informed consent.

(See attached table)

ENTEROMEDICS INC.
(A Development Stage Company)
Condensed Consolidated Statements of Operations (unaudited)
(in thousands, except per share data)

| | | Three Months Ended March 31, | |
|-------------------------------------------------------------|------------|---------------------------------|--|
| | 2009 | 2008 | |
| Operating expenses: | | | |
| Research and development | \$ 3,791 | \$ 6,183 | |
| Selling, general and administrative | 1,906 | 2,333 | |
| Total operating expenses | 5,697 | 8,515 | |
| Loss from operations | (5,697) | (8,515) | |
| Other income (expense), net | (972) | 17 | |
| Net loss | \$ (6,669) | \$ (8,498) | |
| Nethern and house had and diluted | ¢ (0.20) | ¢ (0.51) | |
| Net loss per share - basic and diluted | \$ (0.30) | \$ (0.51) | |
| Shares used to compute basic and diluted net loss per share | 22,151 | 16,799 | |

ENTEROMEDICS INC.
(A Development Stage Company)
Condensed Consolidated Balance Sheets (unaudited) (in thousands)

| | March 31, 2009 | December 31, 2008 | |
|---------------------------------------------------|-------------------|----------------------|--------|
| ASSETS | | | |
| Cash, cash equivalents and short-term investments | \$35,208 | \$ | 26,295 |
| Prepaid expenses and other current assets | 595 | | 499 |
| Property and equipment, net | 1,176 | | 1,264 |
| Other assets | 202 | | 221 |
| Total assets | \$37,181 | \$ | 28,279 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | | |
| Liabilities: | | | |
| Accounts payable | \$ 131 | \$ | 163 |
| Debt | 13,828 | | 13,670 |
| Other liabilities | 4,315 | | 3,040 |
| Total liabilities | 18,274 | | 16,874 |
| Stockholders' equity | 18,907 | | 11,405 |
| Total liabilities and stockholders' equity | \$37,181 | \$ | 28,279 |