

EnteroMedics Inc.

SPECIAL MEETING OF STOCKHOLDERS

**Thursday, July 2, 2009
10:00 a.m., Central Time**

**EnteroMedics Inc.
2800 Patton Road
St. Paul, MN 55113**



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2800 Patton Road
St. Paul, Minnesota 55113**

proxy

This proxy is solicited by the Board of Directors for use at the Special Meeting on July 2, 2009.

The shares of stock you hold in your account will be voted as you specify on the reverse side.

If no choice is specified, the proxy will be voted "FOR" Item 1.

By signing the proxy, you revoke all prior proxies and appoint Mark B. Knudson, Ph.D. and Greg S. Lea, and each of them, with full power of substitution, to vote your shares on the matters shown on the reverse side and any other matters which may come before the Special Meeting and all adjournments.

See reverse for voting instructions.

COMPANY #

There are three ways to vote your Proxy

Your telephone or internet vote authorizes the Named Proxies to vote your shares in the same manner as if you marked, signed and returned your proxy card.

VOTE BY PHONE — TOLL FREE — 1-800-560-1965 — QUICK ★★★ EASY ★★★ IMMEDIATE

- Use any touch-tone telephone to vote your proxy 24 hours a day, 7 days a week, until 12:00 p.m. (CT) on July 1, 2009.
- Please have your proxy card and the last four digits of your Social Security Number or taxpayer identification number available. Follow the simple instructions the voice provides you.

VOTE BY INTERNET — <http://www.eproxy.com/etrm/> — QUICK ★★★ EASY ★★★ IMMEDIATE

- Use the Internet to vote your proxy 24 hours a day, 7 days a week until 12:00 p.m. (CT) on July 1, 2009.
- Please have your proxy card and the last four digits of your Social Security Number or taxpayer identification number available. Follow the simple instructions to obtain your records and create an electronic ballot.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we've provided or return it to **EnteroMedics Inc.**, c/o Shareowner ServicesSM, P.O. Box 64873, St. Paul, MN 55164-0873.

If you vote by Phone or Internet, please do not mail your Proxy Card.

⏏ Please detach here ⏏

The Board of Directors Recommends a Vote FOR Item 1.

1. Amendment to the Fifth Amended and Restated Certificate of Incorporation to increase the shares of common stock authorized for issuance by 35 million shares from 50 million to 85 million. Vote FOR Vote AGAINST ABSTAIN

2. To transact such other business as may properly be considered at the meeting or any adjournment of the meeting.

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, WILL BE VOTED FOR EACH PROPOSAL.

Address Change? Mark Box Indicate changes below:

Date _____

Signature(s) in Box
Please sign exactly as your name(s) appear on the Proxy. If held in joint tenancy, all persons must sign. Trustees, administrators, etc., should include title and authority. Corporations should provide full name of corporation and title of authorized officer signing the proxy.