

November 2, 2007

Mail Stop 6010

Mark B. Knudson, Ph.D.  
Chief Executive Officer  
EnteroMedics Inc.  
2800 Patton Road  
St. Paul, Minnesota 55113

**Re: EnteroMedics Inc.  
Amendment No. 4 to Registration Statement on Form S-1  
Filed October 26, 2007  
File No. 333-143265**

Dear Dr. Knudson:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

1. Please note that all amendments should contain a currently dated accountant's consent.

Financial Statements, page F-1

Report of Independent Registered Public Accounting Firm, page F-2

2. Please have your auditors revise their opinion to include a signed unrestricted audit opinion.

Note 18. Subsequent Events, page F-43

3. Please disclose the method and significant assumptions used to value the warrants issued in conjunction with the amended financing agreement. Please also disclose how you accounted for these warrants.

Exhibit 5.1

4. Please file an opinion that does not assume conclusions of law that are an ultimate requirement of the legality opinion. In this regard, it is unclear why the assumption in the third sentence in the third paragraph is necessary and appropriate. The opinion currently assumes "that such parties had the requisite power and authority (corporate or otherwise) to execute, deliver and perform such agreements or instruments, that such agreements or instruments have been duly authorized by all requisite action (corporate or otherwise), executed and delivered by such parties and that such agreements or instruments are the valid, binding and enforceable obligations of such parties."
5. We note your counsel has limited its opinion to the Delaware General Corporation Law. Please have your counsel confirm to us in writing that the law covered by the opinion includes not only the Delaware General Corporation Law, but also to the applicable provisions of the Delaware Constitution and reported judicial decisions interpreting these laws.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

You may contact Julie Sherman at (202) 551-3640 or in her absence, Angela Crane at (202) 551-3554 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3800 with any other questions.

Sincerely,

Peggy Fisher  
Assistant Director

cc (via Fax): Kenneth L. Cutler, Esq.  
Ted S. Hollifield, Esq.