FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Check this box if no longer subject to
Section 16. Form 4 or Form 5
obligations may continue. See
Instruction 1/h)

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL 3235-0287 OMB Number: Estimated average burden 0.5 hours per response:

10% Owner

below)

Other (specify

7. Nature of Indirect

Beneficial

Ownership (Instr. 4)

Footnote(2)

11. Nature

of Indirect

Beneficial Ownership

(Instr. 4)

See

footnote⁽³⁾

See

10. Ownership

Form: Direct (D)

or Indirect (I) (Instr. 4)

5. Relationship of Reporting Person(s) to Issuer

6. Individual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting

6. Ownership Form: Direct

(D) or Indirect (I) (Instr. 4)

(Check all applicable)

Director

below)

Person

5. Amount of Securities

Beneficially

Owned Following Reported

5,790,841

9. Number of derivative

Reported Transaction(s)

882,749

Securities Beneficially Owned Following

(Instr. 4)

Transaction(s)

(Instr. 3 and 4)

8. Price of Derivative

Officer (give title

Instru	ction 1(b).				Filed p						rities Exchange ompany Act of		934		
1. Name and Address of Reporting Person* MPM BIOVENTURES III QP LP						2. Issuer Name and Ticker or Trading Symbol EnteroMedics Inc [ETRM]								5. Relationship of (Check all applic Director Officer below)	
(Last) (First) (Middle) C/O MPM ASSET MANAGEMENT						3. Date of Earliest Transaction (Month/Day/Year) 02/24/2009									
200 CLARENDON ST., 54TH FLOOR					_ 4	4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or 3	
(Street) BOSTON MA 02116														Form 1	
(City)	(5	State)	(Zip)												
		T	able I - N	on-D	erivat	tive S	Securities	s Ac	quire	d, Di	sposed of	, or Be	nefic	ially	Owned
				Date	nsactio h/Day/Y	rear)	2A. Deemed Execution Date, f any (Month/Day/Year)		3. Transaction Code (Instr. 8)		4. Securities Disposed Of	nd 5)	5. Amou Securitie Benefici Owned F		
								Code	v	Amount	(A) or (D)	Pri	rice	Reported Transact (Instr. 3 a	
Commor	ı Stock			02/24/2009		09		1			1,765,499) ⁽¹⁾ A \$1.1		1.15	5,79
			Table II								posed of, o				wned
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution I if any (Month/Day	d Date,	4. Transa Code (8)	action	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)			7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)			8. Price of Derivativ Security (Instr. 5)
					Code	v	(A)	(D)	Date Exerci	isable	Expiration Date	Title	Amo or Num of S		
Common Stock Warrant (Right to Buy)	\$1.38	02/24/2009			P		882,749 ⁽³⁾		08/24	/2009	02/24/2013	Common Stock	882	2,749	\$0.125
l		f Reporting Person* TURES III Q	<u>P LP</u>			•									
(Last)	(Last) (First) (Middle) C/O MPM ASSET MANAGEMENT														
200 CL	ARENDON	ST., 54TH FLO	OR												
(Street) BOSTON MA 0211			16												
(City)		(State)	(Zip)	1											
ı		f Reporting Person* TURES III PA		EL FU	<u>JND</u>	<u>, LP</u>									
l		(First) MANAGEMEN		dle)											
200 CL/	AKENDUN	ST., 54TH FLO	UK												
(Street) BOSTON MA 0211			16												
(City) (State) (Zip)															
MPM :		f Reporting Person [*] TURES III G		<u>CO.</u>											
(Last)	(Last) (First) (Midd			dle)											

C/O MPM ASSET MANAGEMENT 200 CLARENDON ST., 54TH FLOOR								
(Street)	(Street)							
BOSTON	MA	02116						
(City)	(State)	(Zip)						
1. Name and Address of Reporting Person* MPM BIOVENTURES III LP								
(Last)	(First)	(Middle)						
C/O MPM ASSET I 200 CLARENDON								
(Street)								
BOSTON	MA	02116						
(City)	(State)	(Zip)						
1. Name and Address of Reporting Person* MPM BIOVENTURES III GP LP								
(Last)	(First)	(Middle)						
C/O MPM ASSET I 200 CLARENDON								
(Street)								
BOSTON	MA	02116						
(City)	(State)	(Zip)						
Name and Address of Reporting Person* MPM BIOVENTURES III LLC								
(Last)	(First)	(Middle)						
C/O MPM ASSET MANAGEMENT 200 CLARENDON ST., 54TH FLOOR								
(Street)								
BOSTON	MA	02116						
(City)	(State)	(Zip)						
1. Name and Address of Reporting Person* MPM ASSET MANAGEMENT INVESTORS 2002 BVIII LLC								
(Last)	(First)	(Middle)						
	.ast) (First) (Middle) //O MPM ASSET MANAGEMENT							
200 CLARENDON ST., 54TH FLOOR								
(Street) BOSTON	MA	02116						
(City)	(State)	(7in)						
(City)	(State)	(Zip)						

Explanation of Responses:

- 1. The shares were purchased as follows: 1,469,160 by MPM BioVentures III QP, L.P. ("BV III QP"), 98,780 by MPM BioVentures III, L.P. ("BV III"), 29,025 by MPM Asset Management Investors 2002 BVIII LLC ("AM 2002"), 44,384 by MPM BioVentures III Parallel Fund, L.P. ("BV Parallel") and 124,150 by MPM BioVentures III GmbH & Co. Beteiligungs KG ("BV KG"). MPM BioVentures III GP, L.P. ("MPM III GP") and MPM BioVentures III LLC ("MPM III LLC") are the direct cand indirect general partners of BV III QP, BV III, BV Parallel and BV KG. Luke Evnin, Ansbert Gadicke, Nicholas Galakatos, Dennis Henner, Nicholas Simon III, Michael Steinmetz and Kurt Wheeler are the Series A members of MPM III LLC and the managers of AM 2002. Each Reporting Person disclaims beneficial ownership of the securities except to the extent of his or its respective pecuniary interest therein. Mr. Evnin is a director of the Issuer and files Section 16 reports separately.
- 2. The shares are held as follows: 4,818,855 by BV III QP, 323,996 by BV III, 95,201 by AM 2002, 145,579 by BV Parallel and 407,210 by BV KG. Each Reporting Person disclaims beneficial ownership of the securities except to the extent of his or its respective pecuniary interest therein.
- 3. The warrants were purchased and are held as follows: 734,580 by BV III QP, 49,390 by BV III, 14,512 by AM 2002, 22,192 by BV Parallel and 62,075 by BV KG. Each Reporting Person disclaims beneficial ownership of the securities except to the extent of his or its respective pecuniary interest therein.

Remarks:

See Form 4 for Ansbert Gadicke for additional members of this joint filing.

Member of MPM BioVentures III LLC, the general partner of MPM BioVentures III GP, LP, the general partner of MPM BioVentures III Parallel Fund, LP /s/ Luke Evnin, Series A Member of MPM BioVentures III LLC, the general partner of MPM BioVentures III GP, LP, in 02/25/2009 its capacity as the Managing Limited Partner of MPM BioVentures III GmbH & Co. Beteiligungs KG /s/ Luke Evnin, Series A Member of MPM BioVentures III LLC, the general partner of 02/25/2009 MPM BioVentures III GP, LP, the general partner of MPM BioVentures III, LP /s/ Luke Evnin, Series A Member of MPM BioVentures 02/25/2009 III LLC, the general partner of MPM BioVentures III GP, LP /s/ Luke Evnin, Series A Member of MPM BioVentures 02/25/2009 **III LLC** /s/ Luke Evnin, manager of MPM Asset Management 02/25/2009 Investors 2002 BVIII LLC ** Signature of Reporting Person

/s/ Luke Evnin, Series A

02/25/2009

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.