# UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASUPPETON D.C. 20549

WASHINGTON, D.C. 20549

# **SCHEDULE 13G**

Under the Securities Exchange Act of 1934 (Amendment No. 1)\*

# **EnteroMedics**, Inc.

(Name of Issuer)

Common Stock (Title of Class of Securities)

> 29365M 10 9 (CUSIP Number)

December 31, 2008 (Date of Event Which Requires Filing of This Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- o Rule 13d-1(b)
- o Rule 13d-1(c)
- ☑ Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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NAME	OF RE	PORTING PERSONS				
	MPM BioVentures III, L.P.					
CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)						
(a) o						
(a) 0 (b) ☑						
SEC US	E ONL	Y				
CITIZEI	NSHIP	OR PLACE OF ORGANIZATION				
Delawar	e					
		SOLE VOTING POWER				
<b>5</b> NUMBER OF 232,265*						
NOMBER OF     252,205*       SHARES     SHARED VOTING POWER						
BENEFICIALLY <b>6</b> OWNED BY 0						
EACH SOLE DISPOSITIVE POWER						
REPORTING						
PERSON     232,265*       WITH:     SHARED DISPOSITIVE POWER						
0 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON						
232,265* CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)						
CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)						
0						
PERCEI	NT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)				
1.4%						
TYPE O	F REP	ORTING PERSON (SEE INSTRUCTIONS)				
PN						
	MPM Bi CHECK (a) o (b) Z SEC US CITIZE Delawar BER OF ARES ICIALLY ED BY CCH RTING SON TH: AGGRE 232,265 CHECK 0 PERCEI 1.4% TYPE O	MPM BioVentu CHECK THE A (a) o (b) ☑ SEC USE ONL CITIZENSHIP Delaware CITIZENSHIP Delaware 5 3ER OF ARES ICIALLY ED BY ICIALLY ED BY ICIALLY ED BY ICIALLY ED BY ICIALLY B AGGREGATE 232,265* CHECK IF TH o PERCENT OF 1.4% TYPE OF REP				

\*Includes 7,049 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

Page 2 of 24

1	NAME OF REPORTING PERSONS MPM BioVentures III-QP, L.P.				
2	CHECK (a) o (b) ☑	THE A	APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)		
3	SEC US	E ONL	Y		
4	CITIZEI Delawar		OR PLACE OF ORGANIZATION		
NUMI	BER OF SOLE VOTING POWER 3,454,511*				
BENEF	SHARES BENEFICIALLY OWNED BY		SHARED VOTING POWER 0		
REPO	EACH REPORTING PERSON		SOLE DISPOSITIVE POWER 3,454,511*		
WI	WITH: SHARED DISPOSITIVE POWER				
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,454,511*				
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)				
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 20.3%				
12	20.3% TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN				

\*Includes 104,816 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

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1	NAME OF REPORTING PERSONS MPM BioVentures III Parallel Fund, L.P.					
2	CHECK (a) o (b) ☑					
3	SEC US	E ONL	Y			
4	CITIZEI Delawar		OR PLACE OF ORGANIZATION			
NUMI	BER OF SOLE VOTING POWER 104,363*					
BENEF	SHARES ENEFICIALLY OWNED BY		SHARED VOTING POWER 0			
REPO	EACH REPORTING PERSON		SOLE DISPOSITIVE POWER 104,363*			
W	WITH: SHARED DISPOSITIVE POWER 0					
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 104,363*					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 0.6%					
12	0.6% TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN					

\*Includes 3,168 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

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1	NAME OF REPORTING PERSONS MPM BioVentures III GmbH & Co. Beteiligungs KG					
2	CHECK (a) o (b) ☑					
3	SEC US	SEC USE ONLY				
4	CITIZEI Germany		OR PLACE OF ORGANIZATION			
NUMI	ABER OF SOLE VOTING POWER 291,918*					
BENEF	SHARES BENEFICIALLY OWNED BY		SHARED VOTING POWER 0			
REPO	EACH REPORTING PERSON		SOLE DISPOSITIVE POWER 291,918*			
WITH: <b>8</b>			SHARED DISPOSITIVE POWER 0			
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 291,918*					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)					
12	TYPE O PN	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)				

\*Includes 8,858 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

Page 5 of 24

1	NAME OF REPORTING PERSONS MPM Asset Management Investors 2002 BVIII LLC					
2	CHECK (a) o (b) ☑					
3	SEC US	E ONI	X			
4	CITIZEI Delawar		OR PLACE OF ORGANIZATION			
NUMI	IBER OF SOLE VOTING POWER 68,248*					
BENEF	SHARES ENEFICIALLY OWNED BY		SHARED VOTING POWER 0			
REPO	EACH REPORTING PERSON		SOLE DISPOSITIVE POWER 68,248*			
WI	SHARED DISPOSITIVE POWER 0					
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 68,248*					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 0.4%					
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)					

\*Includes 2,072 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

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1	NAME OF REPORTING PERSONS MPM BioVentures III GP, L.P.				
2	CHECK (a) o (b) ☑	THE A	APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)		
3	SEC USE ONLY				
4	CITIZEN		OR PLACE OF ORGANIZATION		
NUME	BER OF SOLE VOTING POWER 0				
BENEF	ARES ICIALLY ED BY	6	SHARED VOTING POWER 4,083,057*		
REPO	EACH REPORTING PERSON 0 SOLE DISPOSITIVE POWER 0				
WI	WITH: SHARED DISPOSITIVE POWER 4,083,057*				
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,083,057*				
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)				
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 24.0%				
12	24.0% TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN				

\* The shares are held as follows: 3,349,695 by MPM BioVentures III-QP, L.P. (" BV III QP"); 225,216 by MPM BioVentures III, L.P. ("BV III"); 101,195 by MPM BioVentures III Parallel Fund, L.P. ("BV III PF"); and 283,060 by MPM BioVentures III GmbH & Co. Beteiligungs KG ("BV III KG"). Also includes shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008 as follows: 104,816 by BV III QP; 7,049 by BV III; 3,168 by BV III PF; and 8,858 by BV III KG. The Reporting Person is the direct general partner of BV III, BV III QP, BV III PF and BV III KG.

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1	NAME OF REPORTING PERSONS					
-	MPM Bi	MPM BioVentures III LLC				
2	CHECK (a) o	THE A	APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)			
	(b) ☑					
3	SEC US	E ONL	Y			
4	CITIZEN		OR PLACE OF ORGANIZATION			
NUME	IBER OF SOLE VOTING POWER					
BENEF	SHARES SENEFICIALLY OWNED BY		SHARED VOTING POWER 4,083,057*			
EACH REPORTING PERSON 0 SOLE DISPOSITIVE POWER 0						
WI	WITH: SHARED DISPOSITIVE POWER 4,083,057*					
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,083,057*					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 24.0%					
12	TYPE O	F REP	ORTING PERSON (SEE INSTRUCTIONS)			

\* The shares are held as follows: 3,349,695 by BV III QP; 225,216 by BV III; 101,195 by BV III PF; and 283,060 by BV III KG. Also includes shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008 as follows: 104,816 by BV III QP; 7,049 by BV III; 3,168 by BV III PF; and 8,858 by BV III KG. The Reporting Person is the indirect general partner of BV III, BV III QP, BV III PF and BV III KG.

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1       NAME OF REPORTING PERSONS Ansbert Gadicke         2       CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)         3       (a) 0 (b) 2         3       SEC USE ONLY         4       CITIZENSHIP OR PLACE OF ORGANIZATION United States         VUMBER OF SHARES BEENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:       5       SOLE VOTING POWER 0         5       0         8       SHARED VOTING POWER 4.151.305*         9       ACGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4.151.305*									
Alisberi Galacke         2       CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)         3       (b) I         3       SEC USE ONLY         4       CITIZENSHIP OR PLACE OF ORGANIZATION         United States       SOLE VOTING POWER         9       SOLE VOTING POWER         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	1								
2       (a) o       (b) Z         3       SEC USE ONLY         4       CITIZENSHIP OR PLACE OF ORGANIZATION         4       United States         NUMBER OF       5         0       5         8       SOLE VOTING POWER         0       SHARES         BENEFICIALLY       6         4.151,305*       SOLE DISPOSITIVE POWER         PERSON       0         WITH:       8         4.151,305*         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	-	Ansbert	Ansbert Gadicke						
2       (a) 0       (b) Z         3       SEC USE ONLY         4       CITIZENSHIP OR PLACE OF ORGANIZATION         4       United States         NUMBER OF       5         0       0         SHARES       SHARED VOTING POWER         6       4.151.305*         CHTIZENSHIP OR PLACE OF OWER       6         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		CHECK	THE A	APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)					
(a)       (b)       (c)         (b)       (c)       (c)         (c)       (c)       (	2								
3       SEC USE ONLY         4       CITIZENSHIP OR PLACE OF ORGANIZATION United States         1       United States         1       SOLE VOTING POWER         0       0         SHARES       SOLE VOTING POWER         6       SHARED VOTING POWER         4       4.151,305*         0       SOLE DISPOSITIVE POWER         7       0         8       SHARED DISPOSITIVE POWER         4.151,305*         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	-								
3       CITIZENSHIP OR PLACE OF ORGANIZATION         4       United States         Vunited States       SOLE VOTING POWER         0       0         SHARES       SHARED VOTING POWER         6       4.151,305*         EACH REPORTING PERSON WITH:       7         8       SHARED DISPOSITIVE POWER         0       0         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		. ,	E ONI	v					
4       CITIZENSHIP OR PLACE OF ORGANIZATION         United States       5         NUMBER OF       5         NUMBER OF       5         0       0         SHARES       6         BENEFICIALLY       6         4,151,305*         EACH       7         SOLE DISPOSITIVE POWER         0       0         WITH:       8         SHARED DISPOSITIVE POWER         4,151,305*         SHARED DISPOSITIVE POWER         4,151,305*         AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	3	SEC US	E UNL	1					
4       United States         NUMBER OF       SOLE VOTING POWER         SHARES       6         BENEFICIALLY       6         4,151,305*         EACH       7         VOWNED BY       7         0       0         WITH:       8         SHARED DISPOSITIVE POWER         4,151,305*         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	0								
United States       SOLE VOTING POWER         NUMBER OF       0         SHARES       6         SHARES       SHARED VOTING POWER         BENEFICIALLY       6         VWNED BY       4,151,305*         EACH       7         SOLE DISPOSITIVE POWER         PERSON       0         WITH:       8         SHARED DISPOSITIVE POWER         4,151,305*         AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		CITIZEI	NSHIP	OR PLACE OF ORGANIZATION					
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:     5     SOLE VOTING POWER 0       8     SHARED VOTING POWER 4,151,305*       9     AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	4	United S	tatoc						
NUMBER OF SHARES       5       0         SHARES       6       SHARED VOTING POWER         BENEFICIALLY OWNED BY EACH REPORTING PERSON       7       SOLE DISPOSITIVE POWER         VITH:       8       SHARED DISPOSITIVE POWER         4,151,305*       0         VITH:       8       SHARED DISPOSITIVE POWER         4,151,305*       4,151,305*         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		United 3	otales	SOLE VOTING DOWER					
NUMBER OF       0         SHARES       SHARED VOTING POWER         BENEFICIALLY       4,151,305*         OWNED BY       4,151,305*         EACH       7         VERSON       0         WITH:       8         SHARED DISPOSITIVE POWER         4,151,305*         AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			5	SOLE VOTING FOWER					
BENEFICIALLY OWNED BY       6       4,151,305*         EACH REPORTING PERSON       7       SOLE DISPOSITIVE POWER         WITH:       8       SHARED DISPOSITIVE POWER         4,151,305*       4,151,305*         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	NUME	BER OF	5	0					
OWNED BY       4,151,305*         EACH       SOLE DISPOSITIVE POWER         REPORTING       7         0       0         WITH:       8         SHARED DISPOSITIVE POWER         4,151,305*         AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			0	SHARED VOTING POWER					
EACH REPORTING PERSON WITH:       7       SOLE DISPOSITIVE POWER 0         8       SHARED DISPOSITIVE POWER 4,151,305*         9       AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				4 1 - 1 - 20 - *					
REPORTING PERSON       7       0         WITH:       8       SHARED DISPOSITIVE POWER         4,151,305*       4,151,305*									
PERSON       0         WITH:       8         4,151,305*         AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				SOLE DISPOSITIVE POWER					
8     4,151,305*       9     AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				0					
4,151,305* AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	WI	TH:	•	SHARED DISPOSITIVE POWER					
AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON									
9									
	9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON							
4,131,303	0								
CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)									
10	10								
0 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)		-							
11	11	PERCEI	NI OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)					
24.4%	**	24.4%							
TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)		TYPE O	F REP	ORTING PERSON (SEE INSTRUCTIONS)					
	12								
IN * The shares are held as follows: 3 349 695 by BV III OP: 225 216 by BV III: 101 195 by BV III PF: 283 060 by BV III KG: and 66 176 by MPM Asset	* Th. 1		.1.1						

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	1							
1	NAME OF REPORTING PERSONS							
▲	Luke Ev	Luke Evnin						
	CHECK	THE A	APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)					
2								
2	(a) o							
	(b) 🗹							
	SEC US	E ONL	Y					
3								
	CITIZEI	NSHIP	OR PLACE OF ORGANIZATION					
4								
	United S	states						
			SOLE VOTING POWER					
		5						
NUM	BER OF		11,980*					
SHA	SHARES		SHARED VOTING POWER					
BENEFICIALLY		6						
OWN	OWNED BY		4,151,305**					
EACH			SOLE DISPOSITIVE POWER					
REPORTING		7						
PERSON			11,980*					
W	WITH:		SHARED DISPOSITIVE POWER					
8								
4,151,305**								
	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON							
9								
	4,163,28	4,163,285* **						
	CHECK	IF TH	E AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
10								
	0	o						
	PERCE	NT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)					
11	1 LITOL							
	24.5%							
		FREP	ORTING PERSON (SEE INSTRUCTIONS)					
12	11120							
14	IN	IN						
L								

\*Includes 11,980 shares issuable pursuant to exercisable options within 60 days of December 31, 2008.

\*\* The shares are held as follows: 3,349,695 by BV III QP; 225,216 by BV III; 101,195 by BV III PF; 283,060 by BV III KG; and 66,176 by BV AM LLC. Also includes warrants exercisable within 60 days of December 31, 2008 as follows: 104,816 by BV III QP; 7,049 by BV III; 3,168 by BV III PF; 8,858 by BV III KG; and 2,072 by BV AM LLC. BV III GP and BV III LLC are the direct and indirect general partners of BV III, BV III QP, BV III PF and BV III KG. The Reporting Person is a Series A member of BV III LLC and a manager of BV AM LLC. The Reporting Person disclaims beneficial ownership of all such shares except to the extent of his proportionate pecuniary interests therein.

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1	NAME OF REPORTING PERSONS Nicholas Galakatos								
	CHECK	THE A	APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)						
2									
	(a) o (b) ☑	(a) 0 (b) ☑							
	SEC US	E ONL	Y						
3									
	CITIZEI	NSHIP	OR PLACE OF ORGANIZATION						
4									
	United S	otates							
		5	SOLE VOTING POWER						
NUMI	BER OF	J	0						
SHA	SHARES BENEFICIALLY		SHARED VOTING POWER						
OWNED BY			4,151,305*						
	CH	7	SOLE DISPOSITIVE POWER						
	REPORTING PERSON		0						
	TH:		SHARED DISPOSITIVE POWER						
		8							
	4,151,305*								
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON								
9	4.151.30	4,151,305*							
	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)								
10									
	0								
11	PERCEI	NT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)						
11	24.4%								
		F REP	ORTING PERSON (SEE INSTRUCTIONS)						
12									
	IN								

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NAME OF REPORTING PERSONS Michael Steinmetz					
CHECK (a) o (b) ☑					
SEC US	E ONL	Y			
		OR PLACE OF ORGANIZATION			
SOLE VOTING POWER BER OF 0					
HARES EFICIALLY NED BY 6 SHARED VOTING POWER 4,151,305*					
AACH ORTING 7 RSON 0 SOLE DISPOSITIVE POWER					
WITH: <b>8</b> SHARED DISPOSITIVE POWER 4,151,305*					
AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,151,305*					
CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)					
TYPE O IN	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)				
	Michael CHECK (a) o (b) Z SEC US CITIZE United S CITIZE United S CITIZE CITIZE CITIZE CITIZE AGGRE 4,151,30 CHECK o PERCE 24.4%	Michael Steinm CHECK THE A (a) o (b) ☑ SEC USE ONL SEC USE ONL CITIZENSHIP United States CITIZENSHIP United States CITIZENSHIP CITIZENSHIP (CIT			

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1	NAME OF REPORTING PERSONS Kurt Wheeler					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) o					
	(b) ☑					
3	SEC USE ONLY					
4	CITIZEI United S		OR PLACE OF ORGANIZATION			
NUMBER OF		5	SOLE VOTING POWER			
SHARES BENEFICIALLY OWNED BY		6	SHARED VOTING POWER 4,151,305*			
EACH REPORTING PERSON		7	SOLE DISPOSITIVE POWER 0			
WITH:		8	SHARED DISPOSITIVE POWER 4,151,305*			
9	AGGRE 4,151,30		AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 24.4%					
12	TYPE O IN	F REP	ORTING PERSON (SEE INSTRUCTIONS)			

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1	NAME OF REPORTING PERSONS Nicholas Simon III					
	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)					
2						
2	(a) o					
	(b) 🗹	(b) ☑				
	SEC USE ONLY					
3						
	CITIZEI	CITIZENSHIP OR PLACE OF ORGANIZATION				
4						
	United S	tates				
		_	SOLE VOTING POWER			
		5				
	BER OF		0			
	ARES	~	SHARED VOTING POWER			
	ICIALLY	6				
	ED BY		4,151,305*			
	СН	_	SOLE DISPOSITIVE POWER			
	RTING	G <b>7</b>				
	SON		0			
WI	TH:	0	SHARED DISPOSITIVE POWER			
		8				
			4,151,305*			
•	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
9						
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
10	0					
11	PERCEI	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)				
11	24.4%					
		TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)				
12						
	IN	IN				

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	1					
1			PORTING PERSONS			
_	Dennis I	lenner				
CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)			APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)			
2						
-	(a) o (b) ☑					
	· /	SEC USE ONLY				
3	DLC CD					
4	CITIZEI	NSHIP	OR PLACE OF ORGANIZATION			
4	United S	tates				
	e inted e	lateb	SOLE VOTING POWER			
		5				
	BER OF		0			
-	ARES ICIALLY	6	SHARED VOTING POWER			
	ED BY	U	4,151,305*			
EA	АСН		SOLE DISPOSITIVE POWER			
	RTING	7				
	RSON					
W	TH:	8	SHARED DISPOSITIVE POWER			
		U	4,151,305*			
	AGGRE	GATE	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
9	4 1 5 1 20					
	4,151,305*					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)					
	0					
	PERCEI	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)				
11	24.4%	24.40/				
	24.4% TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)					
12						
	IN					
* Tho ch		ld ac f	allows: 3 349 695 by BV III OD: 225 216 by BV III: 101 195 by BV III DE: 283 060 by BV III KC: and 66 176 by BV AM I I C			

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# Item 1.

(a) Name of Issuer

EnteroMedics, Inc.

(b) Address of Issuer's Principal Executive Offices

2800 Patton Road St. Paul, MN 55113

### Item 2.

(a) Name of Person Filing

MPM BioVentures III, L.P. MPM BioVentures III-QP, L.P. MPM BioVentures III Parallel Fund, L.P. MPM BioVentures III GmbH & Co. Beteiligungs KG MPM Asset Management Investors 2002 BVIII LLC MPM BioVentures III GP, L.P. MPM BioVentures III LLC Ansbert Gadicke Luke Evnin Nicholas Galakatos Michael Steinmetz Kurt Wheeler Nicholas Simon III Dennis Henner

(b) Address of Principal Business Office or, if none, Residence

c/o MPM Capital L.P. The John Hancock Tower 200 Clarendon Street, 54<sup>th</sup> Floor Boston, MA 02116

(c) Citizenship

All entities were organized in Delaware except MPM BioVentures III GmbH & Co. Beteiligungs KG, which was organized in Germany. The individuals are all United States citizens.

(d) Title of Class of Securities

Common Stock

(e) CUSIP Number

29365M 10 9

#### Item 3. If this statement is filed pursuant to §§240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filing is a:

Not applicable

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# Item 4. Ownership

(a) Amount Beneficially Owned:

MPM BioVentures III, L.P.	232,265(1)
MPM BioVentures III-QP, L.P.	3,454,511(2)
MPM BioVentures III Parallel Fund, L.P.	104,363(3)
MPM BioVentures III GmbH & Co. Beteiligungs KG	291,918(4)
MPM Asset Management Investors 2002 BVIII LLC	68,248(5)
MPM BioVentures III GP, L.P.	4,083,057(6)
MPM BioVentures III LLC	4,083,057(7)
Ansbert Gadicke	4,151,305(8)
Luke Evnin	4,163,285(8)(9)
Nicholas Galakatos	4,151,305(8)
Michael Steinmetz	4,151,305(8)
Kurt Wheeler	4,151,305(8)
Nicholas Simon III	4,151,305(8)
Dennis Henner	4,151,305(8)

Percent of Class:

MPM BioVentures III, L.P.	1.4%
MPM BioVentures III-QP, L.P.	20.3%
MPM BioVentures III Parallel Fund, L.P.	0.6%
MPM BioVentures III GmbH & Co. Beteiligungs KG	1.7%
MPM Asset Management Investors 2002 BVIII LLC	0.4%
MPM BioVentures III GP, L.P.	24.0%
MPM BioVentures III LLC	24.0%
Ansbert Gadicke	24.4%
Luke Evnin	24.5%
Nicholas Galakatos	24.4%
Michael Steinmetz	24.4%
Kurt Wheeler	24.4%
Nicholas Simon III	24.4%
Dennis Henner	24.4%

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(b) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote

MPM BioVentures III, L.P.	232,265(1)
MPM BioVentures III-QP, L.P.	3,454,511(2)
MPM BioVentures III Parallel Fund, L.P.	104,363(3)
MPM BioVentures III GmbH & Co. Beteiligungs KG	291,918(4)
MPM Asset Management Investors 2002 BVIII LLC	68,248(5)
MPM BioVentures III GP, L.P.	0
MPM BioVentures III LLC	0
Ansbert Gadicke	0
Luke Evnin	11,980(9)
Nicholas Galakatos	0
Michael Steinmetz	0
Kurt Wheeler	0
Nicholas Simon III	0
Dennis Henner	0

(ii) Shared power to vote or to direct the vote

MPM BioVentures III, L.P.	0
MPM BioVentures III-QP, L.P.	0
MPM BioVentures III Parallel Fund, L.P.	0
MPM BioVentures III GmbH & Co. Beteiligungs KG	0
MPM Asset Management Investors 2002 BVIII LLC	0
MPM BioVentures III GP, L.P.	4,083,057(6)
MPM BioVentures III LLC	4,083,057(7)
Ansbert Gadicke	4,151,305(8)
Luke Evnin	4,151,305(8)
Nicholas Galakatos	4,151,305(8)
Michael Steinmetz	4,151,305(8)
Kurt Wheeler	4,151,305(8)
Nicholas Simon III	4,151,305(8)
Dennis Henner	4,151,305(8)

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(iii) Sole power to dispose or to direct the disposition of

MPM BioVentures III, L.P.	232,265(1)
MPM BioVentures III-QP, L.P.	3,454,511(2)
MPM BioVentures III Parallel Fund, L.P.	104,363(3)
MPM BioVentures III GmbH & Co. Beteiligungs KG	291,918(4)
MPM Asset Management Investors 2002 BVIII LLC	68,248(5)
MPM BioVentures III GP, L.P.	0
MPM BioVentures III LLC	0
Ansbert Gadicke	0
Luke Evnin	11,980(9)
Nicholas Galakatos	0
Michael Steinmetz	0
Kurt Wheeler	0
Nicholas Simon III	0
Dennis Henner	0

(iv) Shared power to dispose or to direct the disposition of

MPM BioVentures III, L.P.	0
MPM BioVentures III-QP, L.P.	0
MPM BioVentures III Parallel Fund, L.P.	0
MPM BioVentures III GmbH & Co. Beteiligungs KG	0
MPM Asset Management Investors 2002 BVIII LLC	0
MPM BioVentures III GP, L.P.	4,083,057(6)
MPM BioVentures III LLC	4,083,057(7)
Ansbert Gadicke	4,151,305(8)
Luke Evnin	4,151,305(8)
Nicholas Galakatos	4,151,305(8)
Michael Steinmetz	4,151,305(8)
Kurt Wheeler	4,151,305(8)
Nicholas Simon III	4,151,305(8)
Dennis Henner	4,151,305(8)

(1) Includes 7,049 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

(2) Includes 104,816 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

(3) Includes 3,168 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

(4) Includes 8,858 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.

- (5) Includes 2,072 shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008.
- (6) The shares are held as follows: 3,349,695 by BV III QP; 225,216 by BV III; 101,195 by BV III PF; and 283,060 by BV III KG. Also includes shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008 as follows: 104,816 by BV III QP; 7,049 by BV III; 3,168 by BV III PF; and 8,858 by BV III KG. The Reporting Person is the direct general partner of BV III, BV III QP, BV III PF and BV III KG.
- (7) The shares are held as follows: 3,349,695 by BV III QP; 225,216 by BV III; 101,195 by BV III PF; and 283,060 by BV III KG. Also includes shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008 as follows: 104,816 by BV III QP; 7,049 by BV III; 3,168 by BV III PF; and 8,858 by BV III KG. The Reporting Person is the indirect general partner of BV III, BV III QP, BV III PF and BV III KG.
- (8) The shares are held as follows: 3,349,695 by BV III QP; 225,216 by BV III; 101,195 by BV III PF; 283,060 by BV III KG; and 66,176 by BV AM LLC. Also includes shares issuable pursuant to warrants exercisable within 60 days of December 31, 2008 as follows: 104,816 by BV III QP; 7,049 by BV III; 3,168 by BV III PF; 8,858 by BV III KG; and 2,072 by BV AM LLC. BV III GP and BV III LLC are the direct and indirect general partners of BV III, BV III QP, BV III PF and BV III KG. The Reporting Person is a Series A member of BV III LLC and a manager of BV AM LLC. The Reporting Person disclaims beneficial ownership of all such shares except to the extent of his proportionate pecuniary interests therein.

(9) Includes 11,980 shares pursuant to exercisable options within 60 days of December 31, 2008.

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#### Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following o.

# Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.

Not Applicable

#### Item 8. Identification and Classification of Members of the Group

Not Applicable

#### Item 9. Notice of Dissolution of a Group

Not Applicable

#### **Item 10. Certification**

Not Applicable

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#### **SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 11, 2009

MPM BIOVENTURES III, L.P.

- By: MPM BioVentures III GP, L.P., its General Partner
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member

MPM BIOVENTURES III PARALLEL FUND, L.P.

- By: MPM BioVentures III GP, L.P., its General Partner
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member
- MPM ASSET MANAGEMENT INVESTORS 2002 BVIII LLC
- By: /s/ Luke Evnin Name: Luke Evnin Title: Manager

### MPM BIOVENTURES III LLC

By: /s/ Luke Evnin Name: Luke Evnin Title: Serues A Member MPM BIOVENTURES III-QP, L.P.

- By: MPM BioVentures III GP, L.P., its General Partner
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member

MPM BIOVENTURES III GMBH & CO. BETEILIGUNGS KG

- By: MPM BioVentures III GP, L.P., in its capacity as the Managing Limited Partner
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member
- MPM BIOVENTURES III GP, L.P.
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member
- By: /s/ Ansbert Gadicke Name: Ansbert Gadicke

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By: /s/ Luke Evnin Luke Evnin

- By: /s/ Michael Steinmetz Michael Steinmetz
- By: /s/ Nicholas Simon III Nicholas Simon III

# EXHIBITS

A: Joint Filing Agreement

- By: /s/ Nicholas Galakatos Nicholas Galakatos
- By: /s/ Kurt Wheeler Kurt Wheeler
- By: /s/ Dennis Henner Dennis Henner

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#### EXHIBIT A

#### JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned agree to the joint filing on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Common Stock of EnteroMedics, Inc. and further agree that this agreement be included as an exhibit to such filing. Each party to the agreement expressly authorizes each other party to file on its behalf any and all amendments to such statement. Each party to this agreement agrees that this joint filing agreement may be signed in counterparts.

In evidence whereof, the undersigned have caused this Agreement to be executed on their behalf this 11th day of February, 2009.

MPM BIOVENTURES III, L.P.

- By: MPM BioVentures III GP, L.P., its General Partner
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member

MPM BIOVENTURES III PARALLEL FUND, L.P.

- By: MPM BioVentures III GP, L.P., its General Partner
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member
- MPM ASSET MANAGEMENT INVESTORS 2002 BVIII LLC
- By: /s/ Luke Evnin Name: Luke Evnin Title: Manager

MPM BIOVENTURES III LLC

By: /s/ Luke Evnin Name: Luke Evnin Title: Serues A Member

- MPM BIOVENTURES III-QP, L.P.
- By: MPM BioVentures III GP, L.P., its General Partner
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member

MPM BIOVENTURES III GMBH & CO. BETEILIGUNGS KG

- By: MPM BioVentures III GP, L.P., in its capacity as the Managing Limited Partner
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member
- MPM BIOVENTURES III GP, L.P.
- By: MPM BioVentures III LLC, its General Partner
- By: /s/ Luke Evnin Name: Luke Evnin Title: Series A Member
- By: /s/ Ansbert Gadicke Name: Ansbert Gadicke

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By: /s/ Luke Evnin Luke Evnin

- By: /s/ Michael Steinmetz Michael Steinmetz
- By: /s/ Nicholas Simon III Nicholas Simon III

- By: /s/ Nicholas Galakatos Nicholas Galakatos
- By: /s/ Kurt Wheeler Kurt Wheeler
- By: /s/ Dennis Henner Dennis Henner

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