

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934  
(Amendment No. 2\*)

Enteromedics Inc.

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(Name of Issuer)

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Common Stock

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(Title of Class of Securities)

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29365M 10 9

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(CUSIP Number)

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LUKE EVNIN  
MPM ASSET MANAGEMENT  
THE JOHN HANCOCK TOWER  
200 CLARENDON STREET, 54<sup>TH</sup> FLOOR  
BOSTON, MASSACHUSETTS 02116  
TELEPHONE: (617) 425-9200

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(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

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December 14, 2010

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(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

\* 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 disclosures provided in a prior cover page.

The information required on 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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<b>1.</b>	NAME OF REPORTING PERSONS MPM BioVentures III-QP, L.P	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) WC	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 1,512,522(2)
	<b>8.</b>	SHARED VOTING POWER 0
	<b>9.</b>	SOLE DISPOSITIVE POWER 1,512,522(2)
	<b>10.</b>	SHARED DISPOSITIVE POWER 0
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,512,522(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 5.3%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN	

(1) This Schedule is filed by MPM BioVentures III-QP, L.P. ("BV III QP"), MPM BioVentures III, L.P. ("BV III"), MPM BioVentures III Parallel Fund, L.P. ("BV III PF"), MPM BioVentures III GmbH & Co. Beteiligungs KG ("BV III KG"), MPM Asset Management Investors 2002 BVIII LLC ("AM LLC"), MPM BioVentures III GP, L.P. ("BV III GP") and MPM BioVentures III LLC ("BV III LLC" and collectively with BV III QP, BV III, BV III PF, BV III KG, AM LLC and BV III GP, the "MPM Entities") and Luke Evnin, Ansbert Gadick, Nicholas Galakatos, Michael Steinmetz, Kurt Wheeler, Nicholas Simon III and Dennis Henner (collectively, the "Listed Persons"). BVIII GP and BVIII LLC are the direct and indirect general partners of BV III QP, BV III, BV III PF and BV III KG. The Listed Persons are Series A members of BV III LLC and managers of AM LLC. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Includes 123,040 shares of Common Stock issuable pursuant to warrants, which are exercisable within 60 days of the date of this filing.

(3) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.

<b>1.</b>	NAME OF REPORTING PERSONS MPM BioVentures III, L.P	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) WC	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 101,697(2)
	<b>8.</b>	SHARED VOTING POWER 0
	<b>9.</b>	SOLE DISPOSITIVE POWER 101,697(2)
	<b>10.</b>	SHARED DISPOSITIVE POWER 0
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 101,697(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 0.4%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN	

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Includes 8,273 shares of Common Stock issuable pursuant to warrants, which are exercisable within 60 days of the date of this filing.

(3) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.

<b>1.</b>	NAME OF REPORTING PERSONS MPM Asset Management Investors 2002 BVIII LLC	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) WC	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 29,883(2)
	<b>8.</b>	SHARED VOTING POWER 0
	<b>9.</b>	SOLE DISPOSITIVE POWER 29,883(2)
	<b>10.</b>	SHARED DISPOSITIVE POWER 0
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 29,883(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 0.1%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) 00	

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Includes 2,431 shares of Common Stock issuable pursuant to warrants, which are exercisable within 60 days of the date of this filing.

(3) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.

<b>1.</b>	NAME OF REPORTING PERSONS MPM BioVentures III Parallel Fund, L.P	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) WC	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 45,695(2)
	<b>8.</b>	SHARED VOTING POWER 0
	<b>9.</b>	SOLE DISPOSITIVE POWER 45,695(2)
	<b>10.</b>	SHARED DISPOSITIVE POWER 0
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 45,695(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 0.2%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN	

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Includes 3,717 shares of Common Stock issuable pursuant to warrants, which are exercisable within 60 days of the date of this filing.

(3) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.

<b>1.</b>	NAME OF REPORTING PERSONS MPM BioVentures III GmbH & Co. Beteiligungs KG		
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)		
<b>3.</b>	SEC USE ONLY		
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) WC		
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>		
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Germany		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 127,815(2)	
	<b>8.</b>	SHARED VOTING POWER 0	
	<b>9.</b>	SOLE DISPOSITIVE POWER 127,815(2)	
	<b>10.</b>	SHARED DISPOSITIVE POWER 0	
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 127,815(2)		
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>		
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 0.5%(3)		
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN		

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Includes 10,398 shares of Common Stock issuable pursuant to warrants, which are exercisable within 60 days of the date of this filing.

(3) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.

<b>1.</b>	NAME OF REPORTING PERSONS MPM BioVentures III GP, L.P	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) WC	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 0
	<b>8.</b>	SHARED VOTING POWER 1,787,729(2)
	<b>9.</b>	SOLE DISPOSITIVE POWER 0
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,787,729(2)
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,787,729(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.2%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN	

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Consists of 1,389,482 shares of Common Stock and 123,040 shares of Common Stock issuable upon exercise of warrants held by BV III QP; 93,424 shares of Common Stock and 8,273 shares of Common Stock issuable upon exercise of warrants held by BV III; 41,978 shares of Common Stock and 3,717 shares of Common Stock issuable upon exercise of warrants held by BV III PF; and 117,417 shares of Common Stock and 10,398 shares of Common Stock issuable upon exercise of warrants held by BV III KG. The warrants listed above are exercisable within 60 days of the date of this filing. BV III GP and BV III LLC are the direct and indirect general partners of BV III QP, BV III, BV III PF and BV III KG.

(3) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.

<b>1.</b>	NAME OF REPORTING PERSONS MPM BioVentures III LLC	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) WC	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 0
	<b>8.</b>	SHARED VOTING POWER 1,787,729(2)
	<b>9.</b>	SOLE DISPOSITIVE POWER 0
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,787,729(2)
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,787,729(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.2%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) OO	

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Consists of 1,389,482 shares of Common Stock and 123,040 shares of Common Stock issuable upon exercise of warrants held by BV III QP; 93,424 shares of Common Stock and 8,273 shares of Common Stock issuable upon exercise of warrants held by BV III; 41,978 shares of Common Stock and 3,717 shares of Common Stock issuable upon exercise of warrants held by BV III PF; and 117,417 shares of Common Stock and 10,398 shares of Common Stock issuable upon exercise of warrants held by BV III KG. The warrants listed above are exercisable within 60 days of the date of this filing. BV III GP and BV III LLC are the direct and indirect general partners of BV III QP, BV III, BV III PF and BV III KG.

(3) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.



<b>1.</b>	NAME OF REPORTING PERSONS Luke Evnin	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) OO	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 5,799(2)
	<b>8.</b>	SHARED VOTING POWER 1,817,612(3)
	<b>9.</b>	SOLE DISPOSITIVE POWER 5,799(2)
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,817,612(3)
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,823,411(2)(3)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.3%(4)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Consists of shares of Common Stock issuable pursuant to options which are exercisable within 60 days of the date of this filing.

(3) Consists of 1,389,482 shares of Common Stock and 123,040 shares of Common Stock issuable upon exercise of warrants held by BV III QP; 93,424 shares of Common Stock and 8,273 shares of Common Stock issuable upon exercise of warrants held by BV III; 41,978 shares of Common Stock and 3,717 shares of Common Stock issuable upon exercise of warrants held by BV III PF; 117,417 shares of Common Stock and 10,398 shares of Common Stock issuable upon exercise of warrants held by BV III KG; and 27,452 shares of Common Stock and 2,431 shares of Common Stock issuable upon exercise of warrants held by AM LLC. The warrants listed above are exercisable within 60 days of the date of this filing. BV III GP and BV III LLC are the direct and indirect general partners of BV III QP, BV III, BV III PF and BV III KG. The Reporting Person is a Series A member of BV III LLC and a manager of AM LLC.

(4) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and

Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.

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<b>1.</b>	NAME OF REPORTING PERSONS Ansbert Gadicke	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) OO	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 0
	<b>8.</b>	SHARED VOTING POWER 1,817,612(2)
	<b>9.</b>	SOLE DISPOSITIVE POWER 0
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,817,612(2)
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,817,612(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.3%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a "group" for purposes of this Schedule 13D.

(2) Consists of 1,389,482 shares of Common Stock and 123,040 shares of Common Stock issuable upon exercise of warrants held by BV III QP; 93,424 shares of Common Stock and 8,273 shares of Common Stock issuable upon exercise of warrants held by BV III; 41,978 shares of Common Stock and 3,717 shares of Common Stock issuable upon exercise of warrants held by BV III PF; 117,417 shares of Common Stock and 10,398 shares of Common Stock issuable upon exercise of warrants held by BV III KG; and 27,452 shares of Common Stock and 2,431 shares of Common Stock issuable upon exercise of warrants held by AM LLC. The warrants listed above are exercisable within 60 days of the date of this filing. BV III GP and BV III LLC are the direct and indirect general partners of BV III QP, BV III, BV III PF and BV III KG. The Reporting Person is a Series A member of BV III LLC and a manager of AM LLC.

(3) This percentage is calculated based upon 27,892,388 shares of the Issuer's common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer's common stock outstanding on September 30, 2010, as set forth in the Issuer's Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer's common stock issued in connection with the conversion of outstanding convertible preferred stock.



<b>1.</b>	NAME OF REPORTING PERSONS Nicholas Galakatos	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) OO	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 0
	<b>8.</b>	SHARED VOTING POWER 1,817,612(2)
	<b>9.</b>	SOLE DISPOSITIVE POWER 0
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,817,612(2)
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,817,612(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.3%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

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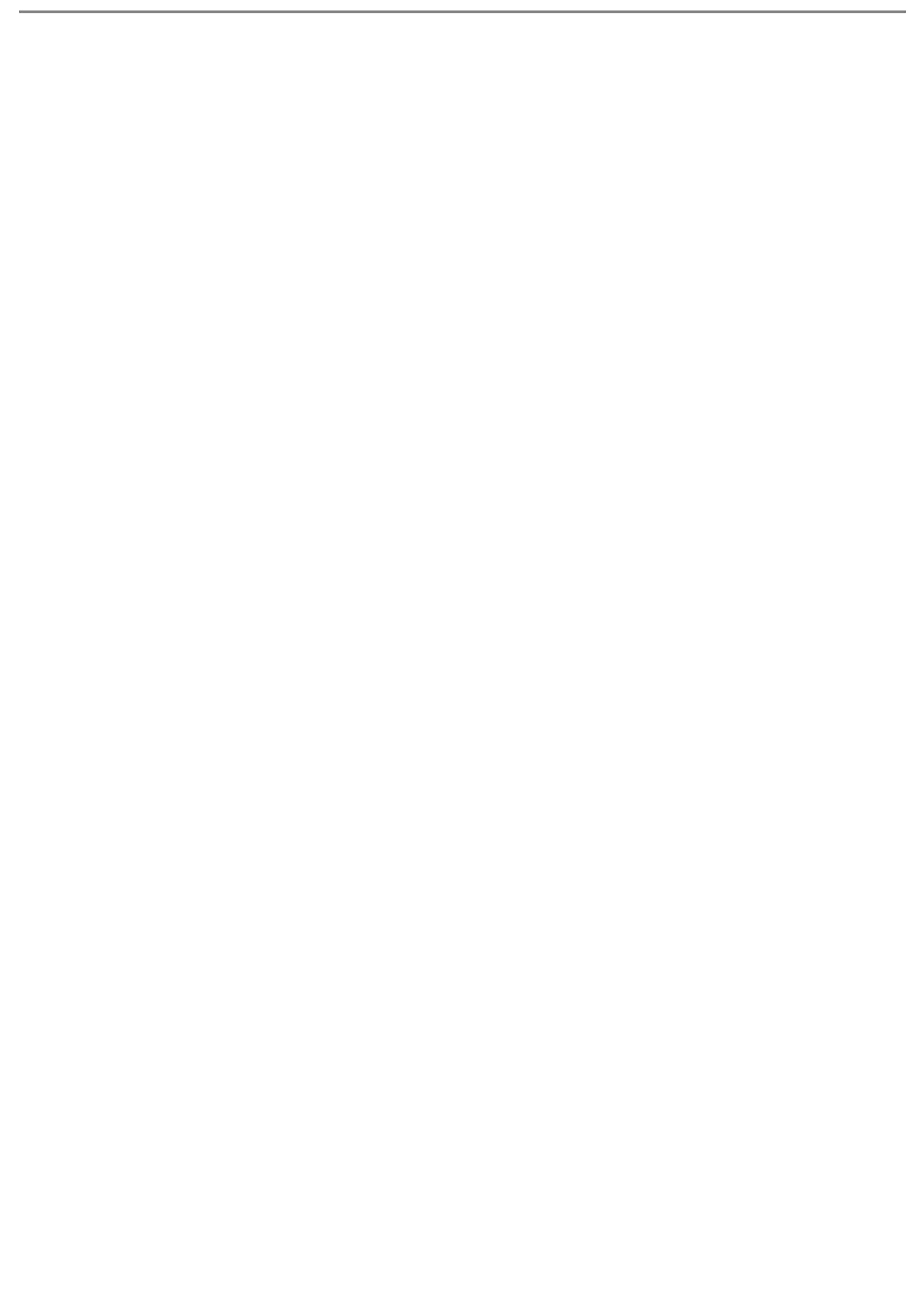


<b>1.</b>	NAME OF REPORTING PERSONS Michael Steinmetz	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) OO	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 0
	<b>8.</b>	SHARED VOTING POWER 1,817,612(2)
	<b>9.</b>	SOLE DISPOSITIVE POWER 0
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,817,612(2)
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,817,612(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.3%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

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<b>1.</b>	NAME OF REPORTING PERSONS Kurt Wheeler	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) OO	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 0
	<b>8.</b>	SHARED VOTING POWER 1,817,612(2)
	<b>9.</b>	SOLE DISPOSITIVE POWER 0
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,817,612(2)
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<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.3%(3)	
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<b>1.</b>	NAME OF REPORTING PERSONS Nicholas Simon III	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) OO	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 0
	<b>8.</b>	SHARED VOTING POWER 1,817,612(2)
	<b>9.</b>	SOLE DISPOSITIVE POWER 0
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,817,612(2)
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,817,612(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.3%(3)	
<b>14.</b>	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

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<b>1.</b>	NAME OF REPORTING PERSONS Dennis Henner	
<b>2.</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/> (1)	
<b>3.</b>	SEC USE ONLY	
<b>4.</b>	SOURCE OF FUNDS (SEE INSTRUCTIONS) OO	
<b>5.</b>	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="radio"/>	
<b>6.</b>	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	<b>7.</b>	SOLE VOTING POWER 0
	<b>8.</b>	SHARED VOTING POWER 1,817,612(2)
	<b>9.</b>	SOLE DISPOSITIVE POWER 0
	<b>10.</b>	SHARED DISPOSITIVE POWER 1,817,612(2)
<b>11.</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,817,612(2)	
<b>12.</b>	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
<b>13.</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 6.3%(3)	
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**Explanatory Note:** This Amendment No. 2 to Schedule 13D (this “Amendment No. 2”) amends and supplements the Schedule 13D originally filed with the United States Securities and Exchange Commission (the “SEC”) on February 24, 2009, as amended by Amendment No. 1 to Schedule 13D originally filed with the SEC on October 13, 2010 (as amended, the “Original Schedule 13D”). The persons and entities filing this Amendment No. 2 are MPM BioVentures III-QP, L.P. (“BV III QP”), MPM BioVentures III, L.P. (“BV III”), MPM BioVentures III Parallel Fund, L.P. (“BV III PF”), MPM BioVentures III GmbH & Co. Beteiligungs KG (“BV III KG”), MPM Asset Management Investors 2002 BVIII LLC (“AM LLC”), MPM BioVentures III GP, L.P. (“BV III GP”), MPM BioVentures III LLC (“BV III LLC”) (each an “MPM Entity” and collectively, the “MPM Entities”) and Luke Evnin, Ansbert Gadicke, Nicholas Galakatos, Michael Steinmetz, Kurt Wheeler, Nicholas Simon III and Dennis Henner (collectively, the “Listed Persons” and together with the MPM Entities, the “Filing Persons”). The Original Schedule 13D, as amended by this Amendment No. 2 (the “Schedule 13D”), relates to the common stock, par value \$0.01 per share (the “Common Stock”), of EnteroMedics Inc. (the “Issuer”). This Amendment No. 2 is being made to reflect the Filing Persons’ holdings following the recent public offering of securities of the Issuer on December 14, 2010 (the “Offering”). The Filing Persons did not participate in the Offering. All outstanding shares of Series A Non-Voting Convertible Preferred Stock held by the Filing Persons were automatically converted into shares of Common Stock on a 1:1 basis immediately following the closing of the Offering. Capitalized terms used herein but not defined shall have the meanings ascribed to them in the Original Schedule 13D. This Amendment No. 2 amends the Original Schedule 13D as specifically set forth herein. Except as set forth below, all previous Items in the Original Schedule 13D remain unchanged.

#### Item 5. Interest in Securities of the Issuer

Item 15 is amended and restated in its entirety as follows:

The following information with respect to the beneficial ownership of the Common Stock of the Issuer by the persons filing this Schedule 13D is provided as of the date of this filing:

MPM Entity	Shares Held Directly	Shares Issuable Upon Exercise of Warrants Held Directly(1)	Shares Issuable Upon Exercise of Options Held Directly(1)	Sole Voting Power	Shared Voting Power	Sole Dispositive Power	Shared Dispositive Power	Beneficial Ownership	Percentage of Class (2)
BV III QP	1,389,482	123,040	0	1,512,522	0	1,512,522	0	1,512,522	5.3%
BV III	93,424	8,273	0	101,697	0	101,697	0	101,697	0.4%
AM LLC	27,452	2,431	0	29,883	0	29,883	0	29,883	0.1%
BV III PF	41,978	3,717	0	45,695	0	45,695	0	45,695	0.2%
BV III KG	117,417	10,398	0	127,815	0	127,815	0	127,815	0.5%
BV III GP(3)	0	0	0	0	1,787,729	0	1,787,729	1,787,729	6.2%
BV III LLC(3)	0	0	0	0	1,787,729	0	1,787,729	1,787,729	6.2%
Luke Evnin(4) (5)	0	0	5,799	5,799	1,817,612	5,799	1,817,612	1,823,411	6.3%
Ansbert Gadicke(4)	0	0	0	0	1,817,612	0	1,817,612	1,817,612	6.3%
Nicholas Galakatos(4)	0	0	0	0	1,817,612	0	1,817,612	1,817,612	6.3%
Michael Steinmetz(4)	0	0	0	0	1,817,612	0	1,817,612	1,817,612	6.3%
Kurt Wheeler(4)	0	0	0	0	1,817,612	0	1,817,612	1,817,612	6.3%
Nicholas Simon III(4)	0	0	0	0	1,817,612	0	1,817,612	1,817,612	6.3%
Dennis Henner(4)	0	0	0	0	1,817,612	0	1,817,612	1,817,612	6.3%

(1) Comprised of securities exercisable within 60 days of the filing date of this Amendment No. 2. Because the Up Front Warrants are not exercisable within 60 days of the filing date, the shares of Common Stock underlying the Up Front Warrants are not included above.

(2) This percentage is calculated based upon 27,892,388 shares of the Issuer’s common stock outstanding, as adjusted pursuant to Rule 13d-3(d)(1) promulgated under the Securities Exchange Act, which is the sum of: (i) 7,478,079 shares of the Issuer’s common stock outstanding on September 30, 2010, as set forth in the Issuer’s Prospectus Supplement filed Pursuant to Rule 424(b)(1) of the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission on December 9, 2010, (ii) 17,020,000 shares of common stock issued pursuant to the Offering and (iii) 3,394,309 shares of the Issuer’s common stock issued in connection with the conversion of outstanding convertible preferred stock.

- (3) BV III GP and BV III LLC are the direct and indirect general partners of BV III QP, BV III, BV III PF and BV III KG. The securities are held as follows: 1,389,482 shares of Common Stock and 123,040 shares of Common Stock issuable upon exercise of warrants held by BV III QP; 93,424 shares of Common Stock and 8,273 shares of Common Stock issuable upon exercise of warrants held by BV III; 41,978 shares of Common Stock and 3,717 shares of Common Stock issuable upon exercise of warrants held by BV III PF; and 117,417 shares of Common Stock and 10,398 shares of Common Stock issuable upon exercise of warrants held by BV III KG.
- (4) The Reporting Person is a Series A member of BV III LLC and a manager of AM LLC. The securities are held as follows: 1,389,482 shares of Common Stock and 123,040 shares of Common Stock issuable upon exercise of warrants held by BV III QP; 93,424 shares of Common Stock and 8,273 shares of Common Stock issuable upon exercise of warrants held by BV III; 41,978 shares of Common Stock and 3,717 shares of Common Stock issuable upon exercise of warrants held by BV III PF; 117,417 shares of Common Stock and 10,398 shares of Common Stock issuable upon exercise of warrants held by BV III KG; and 27,452 shares of Common Stock and 2,431 shares of Common Stock issuable upon exercise of warrants held by AM LLC.
- (5) Includes shares issuable upon the exercise of options within 60 days of the filing date.

**Item 7. Material to Be Filed as Exhibits**

- A. Agreement regarding filing of joint Schedule 13D.
-



**SIGNATURES**

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.

Date: December 22, 2010

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-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 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 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 ASSET MANAGEMENT INVESTORS 2002  
BVIII LLC

By: /s/ Luke Evnin  
Name: Luke Evnin  
Title: Manager

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

MPM BIOVENTURES III LLC

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

By: /s/ Ansbert Gadicke  
Name: Ansbert Gadicke

By: /s/ Michael Steinmetz  
Name: Michael Steinmetz

By: /s/ Nicholas Simon III  
Name: Nicholas Simon III

By: /s/ Luke Evnin  
Name: Luke Evnin

By: /s/ Nicholas Galakatos  
Name: Nicholas Galakatos

By: /s/ Kurt Wheeler  
Name: Kurt Wheeler

By: /s/ Dennis Henner  
Name: Dennis Henner

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative (other than an executive officer or general partner of the filing person), evidence of the representative's authority to sign on behalf of such person shall be filed with the statement: provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

**Attention: Intentional misstatements or omissions of fact  
constitute Federal criminal violations (See 18 U.S.C. 1001)**

## EXHIBIT INDEX

A. Agreement regarding filing of joint Schedule 13D.

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JOINT FILING STATEMENT

I, the undersigned, hereby express my agreement that the attached Schedule 13D (and any amendments thereto) relating to the Common Stock of EnteroMedics Inc. is filed on behalf of each of the undersigned.

Dated: December 22, 2010

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: Series A Member

By: /s/ Ansbert Gadicke  
Name: Ansbert Gadicke

By: /s/ Michael Steinmetz  
Name: Michael Steinmetz

By: /s/ Nicholas Simon III  
Name: Nicholas Simon III

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/ Luke Evnin  
Name: Luke Evnin

By: /s/ Nicholas Galakatos  
Name: Nicholas Galakatos

By: /s/ Kurt Wheeler  
Name: Kurt Wheeler

By: /s/ Dennis Henner  
Name: Dennis Henner