

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13D  
Under the Securities Exchange Act of 1934

(Amendment No. 4)

**MEI Pharma, Inc**

(Name of Issuer)

**Common Stock, par value \$0.0000002 per share**

(Title of Class of Securities)

**55279B202**

(CUSIP Number)

**Leo Kirby**  
**667 Madison Avenue, 21st Floor**  
**New York, NY 10065**  
**(212) 339-5633**

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

**October 25, 2013**

(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 Rule 13d-1(e), 13d-1(f) or 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 Rule 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 (the "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)

**SCHEDULE 13D**

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<b>1</b>	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS  Baker Bros. Advisors LP  13-4093645	
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) <span style="float:right">(a) <input type="checkbox"/></span> <span style="float:right">(b) <input type="checkbox"/></span>	
<b>3</b>	SEC USE ONLY	
<b>4</b>	SOURCE OF FUNDS (See Instructions)  OO	
<b>5</b>	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <span style="float:right"><input type="checkbox"/></span>	
<b>6</b>	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>		
<b>7</b>	SOLE VOTING POWER	1,130,317 (1)
<b>8</b>	SHARED VOTING POWER	0
<b>9</b>	SOLE DISPOSITIVE POWER	1,130,317 (1)
<b>10</b>	SHARED DISPOSITIVE POWER	0
<b>11</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,130,317 (1)	
<b>12</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <span style="float:right"><input type="checkbox"/></span>	
<b>13</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.1%(1)(2)	
<b>14</b>	TYPE OF REPORTING PERSON (See Instructions)  IA	

(1) Includes shares of common stock issuable upon exercise of the Warrant (as defined in Item 5 below), subject to the limitations on exercise described in Item 5 below.

(2) Based on 17,116,662 shares of common stock outstanding as of September 13, 2013, as reported in the Issuer's Form 10-K filed with the SEC on September 27, 2013, plus 4,375,000 shares issued as reported in the Issuer's Form 8-K filed with the SEC on October 29, 2013.

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<b>1</b>	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS  Baker Bros. Advisors (GP) LLC  46-37147749	
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) <span style="float: right;">(a) <input type="checkbox"/></span> <span style="float: right;">(b) <input type="checkbox"/></span>	
<b>3</b>	SEC USE ONLY	
<b>4</b>	SOURCE OF FUNDS (See Instructions)  OO	
<b>5</b>	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <span style="float: right;"><input type="checkbox"/></span>	
<b>6</b>	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	<b>7</b>	SOLE VOTING POWER  1,130,317 (1)
	<b>8</b>	SHARED VOTING POWER  0
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<b>11</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,130,317 (1)	
<b>12</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <span style="float: right;"><input type="checkbox"/></span>	
<b>13</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.1%(1)(2)	
<b>14</b>	TYPE OF REPORTING PERSON (See Instructions)  IA	

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<b>1</b>	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS  Julian C. Baker	
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) <span style="float: right;">(a) <input type="checkbox"/></span>  <span style="float: right;">(b) <input type="checkbox"/></span>	
<b>3</b>	SEC USE ONLY	
<b>4</b>	SOURCE OF FUNDS (See Instructions)  OO	
<b>5</b>	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <span style="float: right;"><input type="checkbox"/></span>	
<b>6</b>	CITIZENSHIP OR PLACE OF ORGANIZATION  United States	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	<b>7</b>	SOLE VOTING POWER  1,130,317 (1)
	<b>8</b>	SHARED VOTING POWER  0
	<b>9</b>	SOLE DISPOSITIVE POWER  1,130,317 (1)
	<b>10</b>	SHARED DISPOSITIVE POWER  0
<b>11</b>	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,130,317 (1)	
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<b>13</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.1%(1)(2)	
<b>14</b>	TYPE OF REPORTING PERSON (See Instructions)  IN, HC	

(1) Includes shares of common stock issuable upon exercise of the Warrant (as defined in Item 5 below), subject to the limitations on exercise described in Item 5 below.

(2) Based on 17,116,662 shares of common stock outstanding as of September 13, 2013, as reported in the Issuer's Form 10-K filed with the SEC on September 27, 2013, plus 4,375,000 shares issued as reported in the Issuer's Form 8-K filed with the SEC on October 29, 2013.

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<b>1</b>	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS  Felix J. Baker	
<b>2</b>	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) <span style="float:right">(a) <input type="checkbox"/> (b) <input type="checkbox"/></span>	
<b>3</b>	SEC USE ONLY	
<b>4</b>	SOURCE OF FUNDS (See Instructions)  OO	
<b>5</b>	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e) <span style="float:right"><input type="checkbox"/></span>	
<b>6</b>	CITIZENSHIP OR PLACE OF ORGANIZATION  United States	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	<b>7</b>	SOLE VOTING POWER  1,130,317 (1)
	<b>8</b>	SHARED VOTING POWER  0
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<b>12</b>	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <span style="float:right"><input type="checkbox"/></span>	
<b>13</b>	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.1%(1)(2)	
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#### **Amendment No. 4 to Schedule 13D**

This Amendment No. 4 to Schedule 13D amends and supplements the previously filed Schedules 13D filed by Baker Bros. Advisors (GP) LLC (the “Adviser GP”), Baker Bros. Advisors LP (the “Adviser”), Julian C. Baker and Felix J. Baker. Except as supplemented herein, such statements, as heretofore amended and supplemented, remain in full force and effect.

Pursuant to the amended and restated management agreements, as amended, among the Adviser, Baker Brothers Life Sciences, L.P. (“Life Sciences”), 14159, L.P. (“14159”), and 667, L.P. (“667”, and together with Life Sciences and 14159, the “Funds”), and their respective general partners, the Adviser has complete and unlimited discretion and authority with respect to the Funds’ investments and voting power over investments.

#### **Item 3. Source and Amount of Funds or Other Consideration**

The disclosure regarding the purchase of Common Stock pursuant to the Offering (as defined below) in Item 4 is incorporated by reference herein.

#### **Item 4. Purpose of the Transaction.**

On October 25, 2013, the MEI Pharma, Inc. (the “Issuer”) entered into an underwriting agreement (the “Underwriting Agreement”) with Stifel, Nicolaus & Company, Incorporated and Cowen and Company, LLC, as representatives of the several underwriters listed on Schedule I thereto (the “Underwriters”), related to a public offering (the “Offering”) of 4,375,000 shares of the Issuer’s common stock at a price to the public of \$8.00 per share. In addition, the Issuer granted the Underwriters an option exercisable for 30 days from the date of the Underwriting Agreement to purchase, at the public offering price less any underwriting discounts and commissions, up to an additional 656,250 shares of common stock to cover overallotments, if any. The Offering closed on October 30, 2013.

Pursuant to the Offering, on October 25, 2013, 667, Life Sciences and 14159 purchased 9,417, 73,730 and 1,853 shares of the Issuer’s common stock, respectively, at the offering price of \$8.00 per share, totaling 85,000 shares in the aggregate. Each of 667, Life Sciences and 14159 purchased the shares of the Issuer’s common stock with their working capital.

The Funds hold the securities for investment purposes. Whether the Reporting Persons or their affiliates purchase any additional securities or dispose of any securities, and the amount and timing of any such transactions, will depend upon the Reporting Persons’ continuing assessments of pertinent factors, including the availability of shares of Common Stock or other securities for purchase at particular price levels, the business and prospects of the Issuer, other business investment opportunities, economic conditions, stock market conditions, money market conditions, the attitudes and actions of the board of directors and management of the Issuer, the availability and nature of opportunities to dispose of shares in the Issuer and other plans and requirements of the particular entities. The Reporting Persons may discuss items of mutual interest with the Issuer, which could include items in subparagraphs (a) through (j).

Depending upon their assessments of the above factors from time to time, the Reporting Persons or their affiliates may change their present intentions as stated above, including assessing whether to make suggestions to the management of the Issuer regarding financing, and whether to acquire additional securities of the Issuer, including shares of Common Stock (by means of open market purchases, privately negotiated purchases, exercise of some or all of the Stock Options (as defined below), or otherwise) or to dispose of some or all of the securities of the Issuer, including shares of Common Stock, under their control.

Except as otherwise disclosed herein, at the present time, the Reporting Persons do not have any plans or proposals with respect to any extraordinary corporate transaction involving the Issuer including, without limitation, those matters described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

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

(a) and (b) Items 7 through 11 and 13 of each of the cover pages of this Schedule 13D are incorporated herein by reference. Set forth below is the aggregate number of shares of Common Stock of the Issuer directly held by each of the Funds, which may be deemed to be indirectly beneficially owned by the Reporting Persons, as well as shares of Common Stock that may be acquired upon exercise of the Warrant (as defined below) at an exercise price of \$3.12 per share as of the date hereof by the “Funds, subject to the limitation on exercise described below.

Name	Number of Shares of Common Stock	Number of Shares Underlying Warrant
667, L.P.	36,763	52,430
Baker Brothers Life Sciences, L.P.	384,243	632,450
14159, L.P.	9,311	15,120

Pursuant to the Warrants to Purchase Common Stock by each Fund dated November 4, 2012 (the “Warrant”), if at any time the beneficial ownership of the Funds and their affiliates exceeds 9.99% of the shares of Common Stock outstanding immediately after giving effect to the exercise of the Warrant, then the number of shares of common stock that may be acquired by the Funds and their affiliates upon any exercise of the Warrant will be limited to the extent necessary to ensure that, following such exercise, the total number of shares of common stock then beneficially owned by the Funds and their affiliates does not exceed 9.99% of the total number of then issued and outstanding shares of Common Stock (including for such purpose the shares of Common Stock issuable upon exercise of the Warrant) (the “Maximum Percentage”). At any time that the Funds and their affiliates do not beneficially own in excess of the Maximum Percentage, the Funds may, by written notice to the Issuer, from time to time increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99% specified in such notice. Pursuant to the Warrant, any such increase will not be effective until the 61st day after such notice is delivered to the Issuer.

The Adviser GP, Felix J. Baker and Julian C. Baker as principals of the Adviser GP, and the Adviser may be deemed to be beneficial owners of securities of the Issuer directly held by the Funds, and may be deemed to have the power to vote or direct the vote of and the power to dispose or direct the disposition of such securities.

The Reporting Persons disclaim beneficial ownership of the securities held by each of the Funds, and this Schedule 13D shall not be deemed an admission that the Reporting Persons are the beneficial owners of such securities for purposes of Section 13(d) or for any other purpose.

(c) Except as described in this Schedule, including Item 4 hereof, none of the Reporting Persons has effected any transaction in the securities of the Issuer in the past 60 days.

(d) Certain securities of the Issuer are held directly by 667, a limited partnership the sole general partner of which is Baker Biotech Capital, L.P., a limited partnership the sole general partner of which is Baker Biotech Capital (GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of Baker Biotech Capital (GP), LLC.

Certain securities of the Issuer are held directly by Life Sciences, a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital, L.P., a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital (GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of Baker Brothers Life Sciences Capital (GP), LLC.

Certain securities of the Issuer are held directly by 14159, a limited partnership the sole general partner of which is 14159 Capital, L.P., a limited partnership the sole general partner of which is 14159 Capital (GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of 14159 Capital (GP), LLC.

(e) Not applicable.

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

<b>Exhibit</b>	<b>Description</b>
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99.1:	Agreement Regarding the Joint Filing of Schedule 13D by and among the Reporting Persons
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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.

October 30, 2013

**BAKER BROS. ADVISORS LP**

By: Baker Bros. Advisors (GP) LLC, its general partner

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

**BAKER BROS. ADVISORS (GP) LLC**

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

/s/ Julian C. Baker

Julian C. Baker

/s/ Felix J. Baker

Felix J. Baker

JOINT FILING AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that only one statement containing the information required by Schedule 13D need be filed with respect to the ownership by each of the undersigned of the shares of common stock of MEI Pharma, Inc..

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original.

EXECUTED as of this 30<sup>th</sup> day of October, 2013.

**BAKER BROS. ADVISORS LP**

By: Baker Bros. Advisors (GP) LLC, its general partner

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

**BAKER BROS. ADVISORS (GP) LLC**

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

/s/ Julian C. Baker

Julian C. Baker

/s/ Felix J. Baker

Felix J. Baker

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