MEDICINES CO /DE Form SC 13G/A May 10, 2007

#### SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# SCHEDULE 13G (Amendment No. 1)

Under the Securities Exchange Act of 1934

The Medicines Company (Name of Issuer)

Common Stock, \$0.001 par value (Title of Class of Securities)

> <u>584688105</u> (CUSIP Number)

#### April 30, 2007

(Date of Event Which Requires Filing of this Statement) Check the following box to designate the rule pursuant to which the Schedule is filed:

- o Rule 13d-1(b)
- x Rule 13d-1(c)
- o 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).

#### CUSIP No. 584688105

1.	Names of Reporting Persons I.R.S. Identification Nos. of above persons (entities only) D. E. Shaw Meniscus Portfolios, L.L.C. 51-0481096		
2.	Check the Appropriate B	ox if a Member of a Gr	oup (See Instructions)
	(a)	0	
	(b)	0	
3.	SEC Use Only		
4.	<b>Citizenship or Place of Organization</b> Delaware		
Number of Shares	5.		Sole Voting Power
Beneficially Owned by Each Reporting Person With			-0-
	6.		Shared Voting Power -0-
	7.		Sole Dispositive Power -0-
	8.		Shared Dispositive Power -0-
9.	Aggregate Amount Beneficially Owned by Each Reporting Person -0-		
10.	<b>Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)</b> o		
11.	<b>Percent of Class Represented by Amount in Row (9)</b> 0.0%		
12.	<b>Type of Reporting Person</b> OO	(See Instructions)	

### CUSIP No. 584688105

1.	Names of Reporting Persons I.R.S. Identification Nos. of above persons (entities only) D. E. Shaw Composite Portfolios, L.L.C. 13-4152438		
2.		ate Box if a Membe	r of a Group (See Instructions)
	(a)	0	
	( <b>b</b> )	0	
3.	SEC Use Only		
4.	<b>Citizenship or Place</b> Delaware	of Organization	
Number of Shares	5.		Sole Voting Power
Beneficially Owned by Each Reporting Person With			-0-
	6.		<b>Shared Voting Power</b> 4,983,087
	7.		<b>Sole Dispositive Power</b> -0-
	8.		<b>Shared Dispositive Power</b> 4,983,087
9.	<b>Aggregate Amount Beneficially Owned by Each Reporting Person</b> 4,983,087		
10.	<b>Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)</b> o		
11.	Percent of Class Represented by Amount in Row (9) 9.7%		
12.	<b>Type of Reporting P</b> OO	erson (See Instruct	ions)

#### CUSIP No. 584688105

1.	Names of Reporting Persons I.R.S. Identification Nos. of above persons (entities only) D. E. Shaw & Co., L.L.C. 13-3799946		
2.	Check the Appropriate Box	t if a Member of a Gro	oup (See Instructions)
	(a) (b)	0	
	(b)	0	
3.	SEC Use Only		
4.	<b>Citizenship or Place of Org</b> Delaware	anization	
Number of Shares	5.		Sole Voting Power
Beneficially Owned by Each Reporting Person With			-0-
	6.		<b>Shared Voting Power</b> 4,983,332
	7.		Sole Dispositive Power -0-
	8.		<b>Shared Dispositive Power</b> 4,983,332
9.	<b>Aggregate Amount Beneficially Owned by Each Reporting Person</b> 4,983,332		
10.	<b>Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)</b> o		
11.	<b>Percent of Class Represented by Amount in Row (9)</b> 9.7%		
12.	<b>Type of Reporting Person</b> ( OO	See Instructions)	

#### CUSIP No. 584688105

1.	Names of Reporting Persons I.R.S. Identification Nos. of above persons (entities only) D. E. Shaw & Co., L.P. 13-3695715		
2.		ite Box if a Member of	f a Group (See Instructions)
	(a)	0	
	( <b>b</b> )	0	
3.	SEC Use Only		
4.	<b>Citizenship or Place o</b> Delaware	of Organization	
Number of Shares	5.		Sole Voting Power
Beneficially Owned by Each Reporting Person With			-0-
	6.		<b>Shared Voting Power</b> 5,032,832
	7.		<b>Sole Dispositive Power</b> -0-
	8.		<b>Shared Dispositive Power</b> 5,032,832
9.	<b>Aggregate Amount Beneficially Owned by Each Reporting Person</b> 5,032,832		
10.	<b>Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)</b> o		
11.	<b>Percent of Class Represented by Amount in Row (9)</b> 9.8%		
12.	<b>Type of Reporting Pe</b> IA, PN	erson (See Instruction	s)

### CUSIP No. 584688105

1.	Names of Reporting Persons I.R.S. Identification Nos. of above persons (entities only) David E. Shaw			
2.		Check the Appropriate Box if a Member of a Group (See Instructions)		
	(a)	0		
	( <b>b</b> )	0		
3.	SEC Use Only			
4.	<b>Citizenship or Place</b> United States	e of Organization		
Number of Shares	5.		Sole Voting Power	
Beneficially Owned by Each			-0-	
Reporting Person With				
	6.		<b>Shared Voting Power</b> 5,032,832	
	7.		Sole Dispositive Power -0-	
	8.		<b>Shared Dispositive Power</b> 5,032,832	
9.	<b>Aggregate Amount Beneficially Owned by Each Reporting Person</b> 5,032,832			
10.	<b>Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)</b> o			
11.	<b>Percent of Class Represented by Amount in Row (9)</b> 9.8%			
12.	<b>Type of Reporting I</b> IN	Person (See Instru	ictions)	

#### Item 1.

(a) Name of Issuer The Medicines Company

### (b) Address of Issuer's Principal Executive Offices:

8 Campus Drive Parsippany, NJ 07054

### Item 2.

#### (a) Name of Person Filing

D. E. Shaw Meniscus Portfolios, L.L.C.D. E. Shaw Composite Portfolios, L.L.C.D. E. Shaw & Co., L.L.C.D. E. Shaw & Co., L.P.David E. Shaw

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

The business address for each reporting person is: 120 W. 45<sup>th</sup> Street, Tower 45, 39<sup>th</sup> Floor New York, NY 10036

#### (c) Citizenship

D. E. Shaw Meniscus Portfolios, L.L.C. is a limited liability company organized under the laws of the state of Delaware.

D. E. Shaw Composite Portfolios, L.L.C. is a limited liability company organized under the laws of the state of Delaware.

D. E. Shaw & Co., L.L.C. is a limited liability company organized under the laws of the state of Delaware. D. E. Shaw & Co., L.P. is a limited partnership organized under the laws of the state of Delaware. David E. Shaw is a citizen of the United States of America.

### (d) Title of Class of Securities

Common Stock, \$0.001 par value

# (e) CUSIP Number

584688105

# Item 3. If this statement is filed pursuant to Rule 13d-1(b) or 13d-2(b) or (c), check whether the person filing is a:

Not applicable

### Item 4. Ownership

As of May 3, 2007:

(a) Amount beneficially owned:

D. E. Shaw Meniscus Portfolios, L.L.C.: -0- shares

D. E. Shaw Composite Portfolios, L.L.C.:	4,983,087 shares
D. E. Shaw & Co., L.L.C.:	4,983,332 shares This is composed of (i) 4,983,087 shares in the name of D. E. Shaw Composite Portfolios, L.L.C. and (ii) 245 shares in the name of D. E. Shaw Synoptic Portfolios 2, L.L.C.
D. E. Shaw & Co., L.P.:	5,032,832 shares This is composed of (i) 4,983,087 shares in the name of D. E. Shaw Composite Portfolios, L.L.C., (ii) 245 shares in the name of D. E. Shaw Synoptic Portfolios 2, L.L.C., and (iii) 49,500 shares that D. E. Shaw Valence, L.L.C. has the right to acquire through the exercise of listed call options.

David E. Shaw:	5,032,832 shares This is composed of (i) 4,983,087 shares in the name of D. E. Shaw Composite Portfolios, L.L.C., (ii) 245 shares in the name of D. E. Shaw Synoptic Portfolios 2, L.L.C., and (iii) 49,500 shares that D. E. Shaw Valence, L.L.C. has the right to acquire through the exercise of listed call options.
(b) Percent of class:	
D. E. Shaw Meniscus Portfolios, L.L.C.:	0.0%
D. E. Shaw Composite Portfolios, L.L.C.:	9.7%
D. E. Shaw & Co., L.L.C.:	9.7%

9.8%

9.8%

(c) Number of shares to which the person has:

D. E. Shaw & Co., L.P.:

David E. Shaw:

(i)	Sole power to vote or to direct the vote: D. E. Shaw Meniscus Portfolios, L.L.C.:	0 shares
	-	-0- shares
	D. E. Shaw Composite Portfolios, L.L.C.:	-0- shares
	D. E. Shaw & Co., L.L.C.:	-0- shares
	D. E. Shaw & Co., L.P.:	-0- shares
	David E. Shaw:	-0- shares
(ii)	Shared power to vote or to direct the vote:	
	D. E. Shaw Meniscus Portfolios, L.L.C.:	-0- shares
	D. E. Shaw Composite Portfolios, L.L.C.:	4,983,087 shares
	D. E. Shaw & Co., L.L.C.:	4,983,087 shares
	D. E. Shaw & Co., L.P.:	5,032,832 shares
	David E. Shaw:	5,032,832 shares
(iii)	Sole power to dispose or to direct the disposition of:	
	D. E. Shaw Meniscus Portfolios, L.L.C.:	-0- shares
	D. E. Shaw Composite Portfolios, L.L.C.:	-0- shares
	D. E. Shaw & Co., L.L.C.:	-0- shares
	D. E. Shaw & Co., L.P.:	-0- shares
	David E. Shaw:	-0- shares
(iv)	Shared power to dispose or to direct the disposition of:	
(iv)		-0- shares
(iv)	disposition of:	-0- shares 4,983,087 shares
(iv)	disposition of: D. E. Shaw Meniscus Portfolios, L.L.C.:	
(iv)	disposition of: D. E. Shaw Meniscus Portfolios, L.L.C.: D. E. Shaw Composite Portfolios, L.L.C.:	4,983,087 shares

David E. Shaw does not own any shares directly. By virtue of David E. Shaw's position as President and sole shareholder of D. E. Shaw & Co., Inc., which is the general partner of D. E. Shaw & Co., L.P., which in turn is the investment adviser of D. E. Shaw Composite Portfolios, L.L.C. and D. E. Shaw Synoptic Portfolios 2, L.L.C. and the managing member of D. E. Shaw Valence, L.L.C., and by virtue of David E. Shaw's position as President and sole shareholder of D. E. Shaw & Co. II, Inc., which is the managing member of D. E. Shaw & Co. II, Inc., which is the managing member of D. E. Shaw & Co., L.L.C., which in turn is the managing member of D. E. Shaw & Co. II, Inc., which is the managing member of D. E. Shaw & Co., L.L.C., David E. Shaw may be deemed to have the shared power to vote or direct the vote of, and the shared power to dispose or direct the disposition of, the 5,032,832 shares as described above constituting 9.8% of the outstanding shares and, therefore, David E. Shaw may be deemed to be the beneficial owner of such shares. David E. Shaw disclaims beneficial ownership of such 5,032,832 shares.

#### 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 5 percent of the class of securities, check the following x

As of the date hereof, D. E. Shaw Meniscus Portfolios, L.L.C. has ceased to be the beneficial owner of more than 5 percent of the class of securities.

<b>Item 6.</b> Not Applicable	Ownership	o of More than Five Percent on Behalf of Another Person.
Item 7.		ion and Classification of the Subsidiary Which Acquired the eing Reported on By the Parent Holding Company or erson
Not Applicable	Control 1	1 3011.
<b>Item 8.</b> Not Applicable		Identification and Classification of Members of the Group
<b>Item 9.</b> Not Applicable		Notice of Dissolution of Group
Item 10.	Certification	

By signing below, each of D. E. Shaw Meniscus Portfolios, L.L.C., D. E. Shaw Composite Portfolios, L.L.C., D. E. Shaw & Co., L.L.C., D. E. Shaw & Co., L.P., and David E. Shaw certify that, to the best of such reporting person's knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having such purposes or effect.

#### SIGNATURE

After reasonable inquiry and to the best of their knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct. Powers of Attorney, dated February 24, 2004, granted by David E. Shaw in favor of Anne Dinning, are attached hereto.

Dated: May 10, 2007

D. E. Shaw Meniscus Portfolios, L.L.C. By: D. E. Shaw & Co., L.L.C., as managing member

By:

/s/ Anne Dinning

Anne Dinning Managing Director

D. E. Shaw Composite Porfolios, L.L.C. By: D. E. Shaw & Co., L.L.C., as managing member

By:

/s/ Anne Dinning

Anne Dinning Managing Director

D. E. Shaw & Co., L.L.C.

By:

/s/ Anne Dinning

Anne Dinning Managing Director

D. E. Shaw & Co., L.P.

By:

/s/ Anne Dinning

Anne Dinning Managing Director

David E. Shaw

By:

/s/ Anne Dinning

Anne Dinning Attorney-in-Fact for David E. Shaw