MEDICINES CO /DE Form SC 13G February 13, 2004

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Original Filing)*

THE MEDICINES COMPANY

(Name of Issuer)

COMMON STOCK

(Title of Class of Securities)

584688105

(CUSIP Number)

DECEMBER 31, 2003

(Date of Event Which Requires Filing of this Statement)

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

- ý Rule 13d-1(b)
- o 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) Sectoral Asset Management Inc.			
2.	Check the Appropriate Box if a Member of a Group (See Instructions)			
	(a)	0		
	(b)	0		
3.	SEC Use Only			
4.	Citizenship or Place Canada	e of Organization		
	5.		Sole Voting Power 82,935	
Number of Shares Beneficially Owned by	6.		Shared Voting Power -0-	
Each Reporting Person With	7.		Sole Dispositive Power 3,247,055	
	8.		Shared Dispositive Power -0-	
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 3,247,055			
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) 0			
11.	Percent of Class Represented by Amount in Row (9) 6.9%			
12.	Type of Reporting I IA	Person (See Instructions)		

1.	Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only) Jérôme G. Pfund			
2.	Check the Appropriate Box if a Member of a Group (See Instructions)			
	(a)	0		
	(b)	0		
3.	SEC Use Only			
4.	Citizenship or Place Swiss	of Organization		
	5.		Sole Voting Power 82,935	
Number of Shares Beneficially Owned by	6.		Shared Voting Power -0-	
Each Reporting Person With	7.		Sole Dispositive Power 3,247,055	
	8.		Shared Dispositive Power -0-	
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 3,247,055			
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) o			
11.	Percent of Class Represented by Amount in Row (9) 6.9%			
12.	Type of Reporting Po IN	erson (See Instructions)		

1.	Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only) Michael L. Sjöström		
2.	Check the Appropriate Box if a Member of a Group (See Instructions)		
	(a)	0	-
	(b)	0	
3.	SEC Use Only		
4.	Citizenship or Place Swiss	of Organization	
	5.		Sole Voting Power 82,935
Number of Shares Beneficially Owned by	6.		Shared Voting Power -0-
Each Reporting Person With	7.		Sole Dispositive Power 3,247,055
	8.		Shared Dispositive Power -0-
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 3,247,055		
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) o		
11.	Percent of Class Represented by Amount in Row (9) 6.9%		
12.	Type of Reporting Pe IN	erson (See Instructions)	

Item 1.

	(a)	Name of Issuer		
		The Medicines Company		
	(b)	Address of Issuer s Principal Executive Offices		
		8 Campus Drive, Su	ite 200, Parsippany NJ 07054 USA	
Item 2.				
	(a)	Name of Person Fili	ng	
		Sectoral Asset Mana	gement Inc.	
		Jérôme G. Pfund		
		Michael L. Sjöström		
	(b)	Address of Principal Business Office or, if none, Residence		
		The principal business address of each person filing is:		
		2120-1000 Sherbroo	ke St. West Montreal PQ H3A 3G4 Canada	
	(c)	Citizenship		
		Sectoral Asset Management Inc. is a Canadian corporation		
		Jérôme G. Pfund is a		
		Michael L. Sjöström	is a Swiss citizen	
	(d)	Title of Class of Sec		
		Common Stock		
	(e)	CUSIP Number		
	. /	584688105		
Item 3.	If this staten	nent is filed pursuant to §§24	0.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:	
	(a)	0	Broker or dealer registered under section 15 of the Act (15 U.S.C.	
	(4)	C C	780).	
	(b)	0	Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).	
	(c)	0	Insurance company as defined in section 3(a)(19) of the Act (15	
		0	U.S.C. 78c).	
	(d)	0	Investment company registered under section 8 of the Investment	
			Company Act of 1940 (15 U.S.C 80a-8).	
	(e)	,		
		ý	An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);	
	(f)	y o		
	(f)		An employee benefit plan or endowment fund in accordance with	
		0	An employee benefit plan or endowment fund in accordance with \$240.13d-1(b)(1)(ii)(F);	
	(f) (g)		An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with	
	(g)	0	An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);	
		o ý	An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); A savings associations as defined in Section 3(b) of the Federal	
	(g) (h)	o ý	An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);	
	(g)	o ý o	An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813); A church plan that is excluded from the definition of an investment	
	(g) (h)	o ý o	An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813); A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of	
	(g) (h) (i)	0 ý 0 0	An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813); A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);	
	(g) (h)	o ý o	An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813); A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of	
	(g) (h) (i)	0 ý 0 0	An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813); A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);	

Item 4. Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1. Sectoral Asset Management Inc, in its capacity as an investment adviser, has the sole right to dispose of or vote the number of shares of common stock of the Issuer set forth in this filing. Jérôme G. Pfund and Michael L. Sjöström are the sole shareholders of Sectoral Asset Management Inc. Sectoral Asset Management, Inc. and Messrs. Pfund and Sjostrom disclaim beneficial ownership of the Issuer s common stock held by Sectoral Asset Management Inc.

(a)	Amount beneficially owned:
	Sectoral Asset Management Inc.: 3,247,055 shares
	Jérôme G. Pfund: 3,247,055 shares
	Michael L. Sjöström: 3,247,055 shares
(b)	Percent of class:
	Sectoral Asset Management Inc.: 6.9%
	Jérôme G. Pfund: 6.9%
	Michael L. Sjöström: 6.9%
(c)	Number of shares as to which the person has:

Sole power to vote or to direct the vote
Sectoral Asset Management Inc.: 82,935 shares
Jérôme G. Pfund: 82,935 shares
Michael L. Sjöström: 82,935 shares
Shared power to vote or to direct the vote
Not applicable.
Sole power to dispose or to direct the disposition of
Sectoral Asset Management Inc.: 3,247,055 shares
Jérôme G. Pfund: 3,247,055 shares
Michael L. Sjöström: 3,247,055 shares
Shared power to dispose or to direct the disposition of
Not applicable.

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

Various persons, as investment advisory clients of Sectoral Asset Management, Inc., have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the common stock of the Issuer. To the knowledge of Sectoral Asset Management, Inc., no one such person s interest in the common stock of the Issuer is more than five percent of the total outstanding common stock of the Issuer.

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 Group

Not applicable.

Item 10. Certification

By signing below the undersigned each certifies that, to the best knowledge and belief of the undersigned, the securities referred to above were acquired and are held in the ordinary course of business and 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 that purpose or effect.

Signature

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

Dated:	February 11, 2004	SECTORAL ASSET MANAGEMENT INC.
		/s/ Jérôme G. Pfund By: Jérôme G. Pfund Its: CEO
Dated:	February 11, 2004	/s/ Jérôme G. Pfund Jérôme G. Pfund
Dated:	February 11, 2004	/s/ Michael L. Sjöström Michael L. Sjöström

Exhibit A

AGREEMENT

Each of the undersigned, pursuant to Rule 13d-1(k)(l) under the Securities Exchange Act of 1934, as amended, hereby agrees that only one statement containing the information required by Schedule 13G needs be filed with respect to the ownership by each of the undersigned of the shares of common stock of The Medicines Company and that the Schedule 13G to which this Agreement is appended as Exhibit A is to be filed with the Securities and Exchange Commission on behalf of each of the undersigned on or about the date hereof.

EXECUTED as a sealed instrument this 11th day of February, 2004.

SECTORAL ASSET MANAGEMENT INC.

/s/ Jérôme G. Pfund By: Jérôme G. Pfund Its: CEO

/s/ Jérôme G. Pfund Jérôme G. Pfund

/s/ Michael L. Sjöström Michael L. Sjöström