ISALY SAMUEL D Form SC 13D/A April 29, 2011

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13D

(Amendment No. 4)

Under the Securities Exchange Act of 1934

Athersys, Inc. (Name of Issuer)

Common Stock (Title of Class of Securities)

04744L106 (CUSIP Number)

OrbiMed Advisors LLC
OrbiMed Capital GP III LLC
Samuel D. Isaly
767 Third Avenue
New York, NY 10017
Telephone: (212) 739-6400

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

February 2, 2011 (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 §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g) check the following box o.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §§ 240.13d-7(b) 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).

(Continued on following pages)

SCHEDULE 13D

CUSIP No. 04744L106

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	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)					
1	OrbiMed Advisors LLC					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) o (b) o					
3	SEC USE ONLY					
	SOURCE OF FU	INDS (See Instruction	ns)			
N/A for events described in Item 1 that triggered the requirement to file this Stateme WC for transactions described in Item 5(c).						
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED o PURSUANT TO ITEMS 2(d) or 2(e)					
6	CITIZENSHIP C	CITIZENSHIP OR PLACE OF ORGANIZATION				
O	Delaware					
		7	SOLE VOTING POWER			
	NUMBER OF	,	0			
P	SHARES BENEFICIALLY		SHARED VOTING POWER			
	OWNED BY EACH	8	2,460,388			
	REPORTING		SOLE DISPOSITIVE POWER			
PERSON WITH		9	0			
			SHARED DISPOSITIVE POWER			
		10	2,460,388			
	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
11	2,460,388					

o

CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
13	
	10.11%

TYPE OF REPORTING PERSON (See Instructions)

14 IA

SCHEDULE 13D

CUSIP No. 04744L106

12

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1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)					
	OrbiMed Capital GP III LLC					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) o (b) o					
3	SEC USE ONLY					
	SOURCE OF FU	NDS (See Instruction	s)			
4	N/A for events described in Item 1 that triggered the requirement to file this Statement. WC for transactions described in Item 5(c).					
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED o PURSUANT TO ITEMS 2(d) or 2(e)					
6		R PLACE OF ORGA	NIZATION			
	Delaware					
		7	SOLE VOTING POWER			
	NUMBER OF	1	0			
F	SHARES ENEFICIALLY OWNED BY	8	SHARED VOTING POWER			
			2,437,170			
	EACH REPORTING	9	SOLE DISPOSITIVE POWER			
WITH	PERSON I		0			
		10	SHARED DISPOSITIVE POWER			
			2,437,170			
	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
11	2,437,170					

o

CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)

13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)		
	10.01%		
	TYPE OF REPORTING PERSON (See Instructions)		

14 OO

SCHEDULE 13D

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CUSIP No. 04744L106

11

2,460,388

NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) 1 Samuel D. Isaly CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) 2 (a) o (b) o SEC USE ONLY 3 SOURCE OF FUNDS (See Instructions) 4 N/A for events described in Item 1 that triggered the requirement to file this Statement. WC for transactions described in Item 5(c). CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) 5 CITIZENSHIP OR PLACE OF ORGANIZATION 6 **United States** SOLE VOTING POWER 7 0 NUMBER OF **SHARES** SHARED VOTING POWER **BENEFICIALLY** 8 OWNED BY 2,460,388 **EACH REPORTING** SOLE DISPOSITIVE POWER 9 **PERSON** WITH SHARED DISPOSITIVE POWER 10 2,460,388 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)	0
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)	
13	10.11%	
	TYPE OF REPORTING PERSON (See Instructions)	
14	IN	

Item 1.Security and Issuer.

The class of equity securities to which this statement relates is Common Stock (the "Shares") of Athersys, Inc. (the "Issuer"), a Delaware company with its principal executive offices located at 3201 Carnegie Avenue, Cleveland, Ohio 44115-2634. The Shares are listed on Nasdaq.

On January 28, 2011, the Issuer announced that it had entered into definitive agreements with certain investors to sell 4,366,667 Shares (the "Share Issuance") and warrants to purchase up to an additional 1,310,000 Shares in a registered direct offering pursuant to the Issuer's effective shelf registration statement previously filed with the Securities and Exchange Commission. The Shares and warrants were sold in multiples of a fixed combination consisting of (1) one Share and (2) a warrant to purchase 0.3 of a Share at an exercise price of \$3.55 per Share, and the investors agreed to purchase the fixed combination for a price of \$3.00. As a result of the Share Issuance, which was expected to close on or about February 2, 2011, the Issuer's total number of outstanding Shares increased from 18,930,678 to 23,297,345 (the "Outstanding Share Increase"). The Reporting Persons did not participate in, or acquire or dispose of any Shares in the Share Issuance. As a result of the Share Issuance (and more specifically, the Outstanding Share Increase), the percentage of outstanding Shares that the Reporting Persons may be deemed to be the beneficial owner of was reduced by more than one percent of the Issuer's now outstanding Shares.

Item 2.Identity and Background.

- (a) This Statement is being filed by OrbiMed Advisors LLC, a limited liability company organized under the laws of Delaware, OrbiMed Capital GP III LLC, a limited liability company organized under the laws of Delaware, and Samuel D. Isaly ("Isaly"), an individual (collectively, the "Reporting Persons").
- (b) (c) OrbiMed Advisors LLC, a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the managing member or general partner of certain entities, as more particularly described in Item 6 below. OrbiMed Advisors LLC has its principal offices at 767 Third Avenue, 30th Floor, New York, New York 10017.

OrbiMed Capital GP III LLC is the general partner of a limited partnership that holds Shares, as more particularly described in Item 6 below. OrbiMed Capital GP III LLC has its principal offices at 767 Third Avenue, 30th Floor, New York, New York 10017.

Isaly, a natural person, owns a controlling interest in OrbiMed Advisors LLC.

(i)

The directors and executive officers of OrbiMed Advisors LLC and OrbiMed Capital GP III LLC are set forth on Schedules I and II, attached hereto. Schedules I and II set forth the following information with respect to each such person:

(ii) business address (or residence address where indicated);

name;

(iii) present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted;

(iv) citizenship.

(d) – (e) During the last five years, neither the Reporting Persons nor any Person named in Schedules I or II have been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Considerations.

Not Applicable. As described more fully in Item 1 above, the event giving rise to the obligation of the Reporting Persons to file this Statement did not involve any transactions effected by one or more Reporting Persons with respect to the Shares.

Item 4.Purpose of Transaction.

Not Applicable. As described more fully in Item 1 above, the event giving rise to the obligation of the Reporting Persons to file this Statement did not involve any transactions effected by one or more Reporting Persons with respect to the Shares.

Item 5.Interest in Securities of the Issuer.

- (a) (b) As of the date of this filing, OrbiMed Advisors LLC, OrbiMed Capital GP III LLC and Isaly may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of 2,460,388 Shares. Based upon information contained in the Form 10-K filed by the Issuer with the SEC on March 25, 2011, such Shares constituted approximately 10.11% of the Shares that are issued and outstanding. As a result of the agreements and relationships described in Items 2 above and Item 6 below, OrbiMed Advisors LLC, OrbiMed Capital GP III LLC and Isaly share power to direct the vote and to direct the disposition of the Shares described in this Item 5.
- (c) Since the transactions reported on in Amendment No. 3 to the Schedule 13D, the Reporting Persons have engaged in the following transactions with respect to the Shares:
- (i) On April 11, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OrbiMed Private Investments III, LP (formerly known as Caduceus Private Investments III, LP) ("OPI III") and OrbiMed Associates III, LP ("Associates"), as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 13,000 Shares at a weighted-average net price per share of \$2.89 (all such Shares were purchased more than 60 days prior to February 2, 2011);
- (ii) On April 12, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OPI III and Associates, as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 14,300 Shares at a weighted-average net price per share of \$2.88 (all such Shares were purchased more than 60 days prior to February 2, 2011);
- (iii) On April 13, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OPI III and Associates, as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 47,700 Shares at a weighted-average net price per share of \$2.92 (all such Shares were purchased more than 60 days prior to February 2, 2011);
- (iv) On April 14, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OPI III and Associates, as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 20,900 Shares at a weighted-average net price per share of \$2.89 (all such Shares were purchased more than 60 days prior to February 2, 2011); and
- (v) On April 15, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OPI III and Associates, as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 30,200 Shares at a weighted-average net price per share of \$2.88 (all such Shares were purchased more than 60 days prior to February 2, 2011).

- (vi) On April 18, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OPI III and Associates, as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 15,700 Shares at a weighted-average net price per share of \$2.91 (all such Shares were purchased more than 60 days prior to February 2, 2011).
- (vii) On April 20, 2011, OrbiMed Capital GP III LLC, pursuant to its authority under the limited partnership agreement of OPI III, as more particularly referred to in Item 6 below, caused OPI III to dispose of 1,300 Shares at a weighted-average net price per share of \$2.88 (all such Shares were purchased more than 60 days prior to February 2, 2011).
- (viii) On April 21, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OPI III and Associates, as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 2,000 Shares at a weighted-average net price per share of \$2.88 (all such Shares were purchased more than 60 days prior to February 2, 2011).
- (ix) On April 25, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OPI III and Associates, as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 36,600 Shares at a weighted-average net price per share of \$2.88 (all such Shares were purchased more than 60 days prior to February 2, 2011).
- (x) On April 26, 2011, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC, pursuant to their authority under the limited partnership agreements of OPI III and Associates, as more particularly referred to in Item 6 below, caused OPI III and Associates to dispose of in the aggregate 7,700 Shares at a weighted-average net price per share of \$2.88 (all such Shares were purchased more than 60 days prior to February 2, 2011).
- (d) Not applicable.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

In addition to the relationships between the Reporting Persons described in Items 2 and 5, OrbiMed Capital GP III LLC is the sole general partner of OPI III, pursuant to the terms of the limited partnership agreement of OPI III, and OrbiMed Advisors LLC is the sole managing member of OrbiMed Capital GP III LLC, pursuant to the terms of the limited liability company agreement of OrbiMed Capital GP III LLC. OrbiMed Advisors LLC is also the sole general partner of Associates, pursuant to the terms of the limited partnership agreement of Associates. Pursuant to these agreements and relationships, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC have discretionary investment management authority with respect to the assets of OPI III and Associates. Such authority includes the power to vote and otherwise dispose of securities purchased by OPI III and Associates. The number of outstanding Shares of the Issuer attributable to OPI III is 1,600,450 Shares and Warrants to purchase 742,925 Shares and to Associates is 15,250 Shares and Warrants to purchase 7,075 Shares. OrbiMed Advisors LLC, pursuant to its authority as the managing member of OrbiMed Capital GP III LLC and the general partner of Associates, may be considered to hold indirectly 1,615,700 Shares and Warrants to purchase 750,000 Shares and OrbiMed Capital GP III LLC, pursuant to its authority as the general partner of OPI III, may be considered to hold indirectly 1,600,450 Shares and Warrants to purchase 742,925 Shares.

Michael B. Sheffery, a partner of OrbiMed Advisors LLC and of OrbiMed Capital GP III LLC who served on Issuer's Board of Directors until September 2010, while so serving was the recipient of a number of stock options of the Issuer (the "Stock Options"). Pursuant to an agreement with the Reporting Persons, Mr. Sheffery is obligated to transfer any

Shares issued pursuant to an exercise of the Stock Options to the Reporting Persons, who will distribute such Shares to OPI III and Associates on a pro-rata basis. Accordingly, the number of Stock Options attributable to OPI III and Associates is 93,795 and 893, respectively. Of these OrbiMed Advisors LLC and OrbiMed Capital GP III LLC may be considered to hold indirectly 94,688 and 93,795 Stock Options, respectively.

Other than the agreements and the relationships mentioned above, to the best knowledge of the Reporting Persons, there are no contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any persons with respect to any securities of the Issuer, including, but not limited to, transfer or voting of any of the Shares, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss, or the giving of withholding of proxies.

Item 7.Materials to be Filed as Exhibits.

A. Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Capital GP III LLC and Samuel D. Isaly

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: April 29, 2011

OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly Title: Managing Partner

OrbiMed Capital GP III LLC

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly Title: Managing Partner

By:/s/ Samuel D. Isaly Name: Samuel D. Isaly

Schedule I

The name and present principal occupation of each of the executive officers and directors of OrbiMed Advisors LLC are set forth below. Unless otherwise noted, each of these persons are United States citizens and have as their business address 767 Third Avenue, New York, NY 10017.

	Position with Reporting		
Name	Person	Principal Occupation	
Samuel D. Isaly	Managing Partner	Member	
		OrbiMed Advisors LLC	
Michael Sheffery	Member	Member	
		OrbiMed Advisors LLC	
Carl L. Gordon	Member	Member	
		OrbiMed Advisors LLC	
Sven Borho	Member	Member	
German and Swedish Citizen		OrbiMed Advisors LLC	
Jonathan T. Silverstein	Member	Member	
		OrbiMed Advisors LLC	
W. Carter Neild	Member	Member	
		OrbiMed Advisors LLC	
Geoffrey C. Hsu	Member	Member	
		OrbiMed Advisors LLC	
Eric A. Bittelman	Chief Financial Officer	CFO	
		OrbiMed Advisors LLC	

Schedule II

The business and operations of OrbiMed Capital GP III LLC are managed by the executive officers and directors of its managing member, OrbiMed Advisors LLC, set forth on Schedule I attached hereto.

EXHIBIT INDEX

Exhibit Description Page No.
A. Joint Filing Agreement among OrbiMed A-1
Advisors LLC, OrbiMed Capital GP III LLC
and Samuel D. Isaly