ATHERSYS, INC / NEW Form SC 13D/A October 02, 2012

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13D

(Amendment No. 6)

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 601 Lexington Avenue, 54th Floor New York, NY 10022 Telephone: (212) 739-6400

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

September 27, 2012

(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)		
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SCHEDULE 13D

CUSIP No. 04744L106

Page 2 of 10 Pages

	NAME OF REPORTING PERSONS					
1	OrbiMed Advisor	rs I I C				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)					
2	(a) o					
	(b) o					
2	SEC USE ONLY	•				
3						
	SOURCE OF FUNDS (See Instructions)					
4			,			
	N/A					
	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED 0					
5	PURSUANT TO	ITEMS 2(d) or 2(e)				
	CITIZENSHIP OR PLACE OF ORGANIZATION					
6	Delaware					
	Delawale		SOLE VOTING DOWER			
		7	SOLE VOTING POWER			
N	NUMBER OF		0			
DE	SHARES		SHARED VOTING POWER			
BENEFICIALLY OWNED BY 8		8	1.025.000			
	EACH REPORTING PERSON		1,035,388			
F		9	SOLE DISPOSITIVE POWER			
WITH		9	0			
			SHARED DISPOSITIVE POWER			
		10				
			1,035,388			
11	AGGREGATE A	MOUNT BENEFICI	ALLY OWNED BY EACH REPORTING PERSON			
11	1,035,388					
12		THE AGGREGATE	AMOUNT IN ROW (11) EXCLUDES o			
	CERTAIN SHARES (See Instructions)					

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

3.48% (1)

TYPE OF REPORTING PERSON (See Instructions)

IA

(1) This percentage is calculated based upon 29,730,343 shares of the Issuer's common stock outstanding, as reported in the Issuer's quarterly report on Form 10-Q filed on August 13, 2012.

SCHEDULE 13D

CUSIP No. 04744L106

Page 3 of 10 Pages

	NAME OF REPORTING PERSONS				
1	OrbiMed Capital	GP III LLC			
	_		E A MEMBER OF A GROUP (See		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)				
2	(a) o				
	(b) o				
3	SEC USE ONLY				
	SOURCE OF FUNDS (See Instructions)				
4	N/A				
	N/A				
_	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED o PURSUANT TO ITEMS 2(d) or 2(e)				
5					
6	CITIZENSHIP O	CITIZENSHIP OR PLACE OF ORGANIZATION			
	Delaware				
		_	SOLE VOTING POWER		
N	NUMBER OF	7	0		
1	SHARES		SHARED VOTING POWER		
BENEFICIALLY 8			SHARED VOTINGTOWER		
,	OWNED BY EACH REPORTING PERSON		1,025,602		
F		0	SOLE DISPOSITIVE POWER		
WITH		9	0		
,,,			SHARED DISPOSITIVE POWER		
		10			
			1,025,602		
11	AGGREGATE A	MOUNT BENEFICI	ALLY OWNED BY EACH REPORTING PERSON		
11	1,025,602				
12		THE AGGREGATE RES (See Instructions	AMOUNT IN ROW (11) EXCLUDES o		
CLICIAN, STRICES (See Instructions)					

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)

13 3.45% (1)

TYPE OF REPORTING PERSON (See Instructions)

14 OO

(1)This percentage is calculated based upon 29,730,343 shares of the Issuer's common stock outstanding, as reported in the Issuer's quarterly report on Form 10-Q filed on August 13, 2012.

SCHEDULE 13D

CUSIP No. 04744L106

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1	NAME OF REPO	ORTING PERSONS			
1	Samuel D. Isaly				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) o (b) o				
2	SEC USE ONLY	•			
3					
1	SOURCE OF FUNDS (See Instructions)				
4	N/A				
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED o PURSUANT TO ITEMS 2(d) or 2(e)				
CITIZENSHIP OR PLACE OF ORGANIZATION					
	United States				
		7	SOLE VOTING POWER		
I	NUMBER OF	,	0		
Bl	SHARES ENEFICIALLY OWNED BY EACH REPORTING	0	SHARED VOTING POWER		
OW		8	1,035,388		
]			SOLE DISPOSITIVE POWER		
With	PERSON	9	0		
WITH			SHARED DISPOSITIVE POWER		
		10	SHARED DISPOSITIVE POWER		
			1,035,388		
11	AGGREGATE A	MOUNT BENEFIC	IALLY OWNED BY EACH REPORTING PER	SON	
11	1,035,388				
12	CHECK BOX IF	THE AGGREGATE	AMOUNT IN ROW (11) EXCLUDES o		

CERTAIN SHARES (See Instructions)

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) $\,$

13 3.48% (1)

IN

TYPE OF REPORTING PERSON (See Instructions)

14

(1)This percentage is calculated based upon 29,730,343 shares of the Issuer's common stock outstanding, as reported in the Issuer's quarterly report on Form 10-Q filed on August 13, 2012.

Item 1.Security and Issuer.

The class of equity securities to which this statement relates is shares of common stock, par value \$0.001 per share ("Shares"), and vested options to purchase Shares exercisable at a weighted average exercise price of \$2.33 per share (the "Options") 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.

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 ("Advisors"), OrbiMed Capital GP III LLC, a limited liability company organized under the laws of Delaware ("Capital"), and Samuel D. Isaly ("Isaly"), an individual (collectively, the "Reporting Persons").
- (b) (c) Advisors, a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the managing member of Capital and general partner of OrbiMed Associates III, LP ("Associates"), a limited partnership that holds Shares, as more particularly described in Item 6 below. Advisors has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

Capital is the general partner of OrbiMed Private Investments III, LP ("OPI III"), a limited partnership that holds Shares, as more particularly described in Item 6 below. Capital has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

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

The directors and executive officers of Advisors and Capital 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:

(i) name;

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

(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.

Item 4.Purpose of Transaction.

As described more fully in Item 5 below, this statement relates to the disposition of Shares by the Reporting Persons. The Shares initially had been acquired (and those that continue to be held, are held) by the Reporting Persons for the purpose of making an investment in the Issuer and not with the intention of acquiring control of the Issuer's business on behalf of OPI III and Associates.

The Reporting Persons from time to time intend to review their investment in the Issuer on the basis of various factors, including the Issuer's business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Issuer's Shares in particular, as well as other developments and other investment opportunities. Based upon such review, the Reporting Persons will take such actions in the future as the Reporting Persons may deem appropriate in light of the circumstances existing from time to time. If the Reporting Persons believe that further investment in the Issuer is attractive, whether because of the market price of the Issuer's Shares or otherwise, they may acquire Shares or other securities of the Issuer either in the open market or in privately negotiated transactions. Similarly, depending on market and other factors, the Reporting Persons may determine to dispose of some or all of the Shares currently owned by the Reporting Persons or otherwise acquired by the Reporting Persons either in the open market or in privately negotiated transactions.

Except as set forth herein, the Reporting Persons have not formulated any plans or proposals which relate to or would result in: (a) the acquisition by any person of additional securities of the Issuer or the disposition of securities of the Issuer, (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries, (c) a sale or transfer of a material amount of the assets of the Issuer or any of its subsidiaries, (d) any change in the present Board of Directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board, (e) any material change in the Issuer's capitalization or dividend policy, (f) any other material change in the Issuer's business or corporate structure, (g) any change in the Issuer's charter or bylaws or other or instrument corresponding thereto or other action which may impede the acquisition of control of the Issuer by any person, (h) causing a class of the Issuer's securities to be deregistered or delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association, (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act or (j) any action similar to any of those enumerated above.

Item 5.Interest in Securities of the Issuer.

(a) – (b) As of the date of this filing, based upon information contained in the most recent available filing by the Issuer with the SEC, the Reporting Persons may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of approximately 3.48% of the outstanding Shares. As a result of the agreements and relationships described in Item 2 above and Item 6 below, Capital may be deemed to be the beneficial owner of approximately 3.45% of the Shares, and Advisors and Isaly may each be deemed to be the beneficial owner of approximately 3.48% of the Shares.

(c)

Entity	Date of Transaction	Number of Shares Sold	Price Per Share
Associates	September 27, 2012	2,800	\$1.39
OPI III	September 27, 2012	297,200	\$1.39
Associates	October 1, 2012	2,850	\$1.30
OPI III	October 1 2012	297 150	\$1.30

- (d) Not applicable.
- (e) On September 27, 2012, the Reporting Persons ceased to be the beneficial owners of more than five percent of the Shares.

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 attributable to OPI III is 1,006,100 Shares and to Associates is 9,600 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 1,015,700 Shares and OrbiMed Capital GP III LLC, pursuant to its authority as the general partner of OPI III, may be considered to hold indirectly 1,006,100 Shares.

Michael B. Sheffery, a member of OrbiMed Advisors LLC served on the Issuer's Board of Directors until September 2010 and was awarded a number of Options for such service. Pursuant to an agreement with the Reporting Persons, Mr. Sheffery is obligated to transfer any Shares issued pursuant to an exercise of the Options to the Reporting Persons, who will distribute such Shares to OPI III and Associates on a pro-rata basis. The number of Options attributable to OPI III and Associates is 19,502 and 186, respectively. Of these, OrbiMed Advisors LLC and OrbiMed Capital GP III LLC may be considered to hold indirectly 19,688 and 19,502 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.

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.

Dated: October 2, 2012

OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly Title: Managing Member

OrbiMed Capital GP III LLC

By: OrbiMed Advisors LLC

its Managing Member

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly Title: Managing Member

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 601 Lexington Avenue, 54th Floor, New York, NY 10022.

	Position with Reporting	
Name	Person	Principal Occupation
Samuel D. Isaly	Managing Member	Managing Member OrbiMed Advisors LLC
Michael B. Sheffery	Member	Member OrbiMed Advisors LLC
Carl L. Gordon	Member	Member OrbiMed Advisors LLC
Sven H. Borho German and Swedish Citizen	Member	Member 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
Evan D. Sotiriou	Chief Financial Officer	Chief Financial Officer 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