

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

SCHEDULE 13D

Under the Securities Exchange Act of 1934  
(Amendment No. \_\_\_)\*

-----  
Biocryst Pharmaceuticals, Inc.

-----  
(Name of Issuer)

-----  
Common Stock

-----  
(Title of Class of Securities)

-----  
09058V103

-----  
(CUSIP Number)

-----  
OrbiMed Advisors LLC  
OrbiMed Capital II 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)

Copy to:

Paul S. Schreiber, Esq.  
Shearman & Sterling LLP  
599 Lexington Avenue  
New York, New York 10022  
Telephone: (212) 848-4000

-----  
December 2, 2005

-----  
(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 ss. 240.13d-1(e), 240.13d-1(f) or 240.13d-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 ss. 240.13d-7(b) for other parties to whom copies are to be sent.

Page 1 of 13

\*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).

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-----  
 (1) Name of Reporting Person  
 S.S. or I.R.S. Identification No. of Above Person  
  
 OrbiMed Advisors LLC  
 -----

(2) Check the Appropriate Box if a Member of a Group (See Instructions)  
 (a)   
 (b)

-----  
 (3) SEC Use Only  
 -----

(4) Source of Funds (See Instructions)  
  
 WC  
 -----

(5) Check box if Disclosure of Legal Proceedings is Required Pursuant to  
 Item 2(d) or 2(e).

-----  
 (6) Citizenship or Place of Organization  
  
 Delaware  
 -----

Number of Shares Beneficially Owned by Each Reporting Person With	(7) Sole Voting Power	0
	(8) Shared Voting Power	91,000
	(9) Sole Dispositive Power	0
	(10) Shared Dispositive Power	91,000

-----  
 (11) Aggregate Amount Beneficially Owned by Each Reporting Person  
  
 91,000  
 -----

(12) Check box if the Aggregate Amount in Row (11) Excludes Certain Shares  
 (See Instructions)

-----  
 (13) Percent of Class Represented by Amount in Row (11)  
  
 .34%  
 -----

(14) Type of Reporting Person (See Instructions)  
  
 IA  
 -----

-----  
 (1) Name of Reporting Person  
 S.S. or I.R.S. Identification No. of Above Person  
  
 OrbiMed Capital II LLC  
 -----

(2) Check the Appropriate Box if a Member of a Group (See Instructions)  
 (a)   
 (b)

(3) SEC Use Only  
 -----

(4) Source of Funds (See Instructions)  
  
 WC  
 -----

(5) Check box if Disclosure of Legal Proceedings is Required Pursuant to  
 Item 2(d) or 2(e)

(6) Citizenship or Place of Organization  
  
 Delaware  
 -----

Number of	(7)	Sole Voting Power	0
Shares			-----
Beneficially	(8)	Shared Voting Power	1,009,000
Owned by			-----
Each	(9)	Sole Dispositive Power	0
Reporting			-----
Person With	(10)	Shared Dispositive Power	1,009,000

(11) Aggregate Amount Beneficially Owned by Each Reporting Person  
  
 1,009,000  
 -----

(12) Check if the Aggregate Amount in Row (11) Excludes Certain Shares  
 (See Instructions)

(13) Percent of Class Represented by Amount in Row (11)  
  
 3.82%  
 -----

(14) Type of Reporting Person (See Instructions)  
  
 IA  
 -----

(1) Name of Reporting Person  
 S.S. or I.R.S. Identification No. of Above Person  
 Samuel D. Isaly

(2) Check the Appropriate Box if a Member of a Group (See Instructions)  
 (a)    
 (b)

(3) SEC Use Only

(4) Source of Funds (See Instructions)  
 AF

(5) Check box if Disclosure of Legal Proceedings is Required Pursuant to  
 Item 2(d) or 2(e).

(6) Citizenship or Place of Organization  
 United States

Number of	(7)	Sole Voting Power	0
Shares			
Beneficially	(8)	Shared Voting Power	1,100,000
Owned by			
Each	(9)	Sole Dispositive Power	0
Reporting			
Person With	(10)	Shared Dispositive Power	1,100,000

(11) Aggregate Amount Beneficially Owned by Each Reporting Person  
 1,100,000

(12) Check box if the Aggregate Amount in Row (11) Excludes Certain Shares  
 (See Instructions)

(13) Percent of Class Represented by Amount in Row (11)  
 4.16%

(14) Type of Reporting Person (See Instructions)  
 HC

Item 1. Security and Issuer.

The class of equity securities to which this Statement on Schedule 13D relates is the Common Stock (the "Shares") of Biocryst Pharmaceuticals, Inc. (the "Issuer"), a Delaware corporation with its principal executive offices located at 2190 Parkway Lake Drive, Birmingham, AL 35244.

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 II 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 is a registered investment adviser under the Investment Advisers Act of 1940, as amended, that acts as investment adviser or general partner to certain clients which hold Shares of the Issuer, as more particularly described in Item 3 below. OrbiMed Advisors LLC has its principal offices at 767 Third Avenue, 30th Floor, New York, New York 10017.

OrbiMed Capital II LLC is a registered investment adviser under the Investment Advisers Act of 1940, as amended, that acts as general partner to certain limited partnerships which hold Shares of the Issuer, as more particularly described in Item 3 below. OrbiMed Capital II 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 and OrbiMed Capital II LLC.

The directors and executive officers of OrbiMed Advisors LLC and OrbiMed Capital II 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:

- (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 and 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.

(f) Isaly is a citizen of the United States.

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

On December 2, 2005, pursuant to the discretionary investment management authority of OrbiMed Advisors LLC and OrbiMed Capital II LLC under their respective investment advisory contracts and limited partnership or limited liability company agreements with or relating to Caduceus Private Investments II, LP, Caduceus Private Investments II (QP), LP and UBS Juniper Crossover Fund, LLC caused these clients to sell 566,667 Shares of the Issuer. The authority referenced in the preceding sentence included authority to vote, purchase and/or sell securities held by or on behalf of such clients, including those Shares of the Issuer referenced in that sentence.

Following the above transactions, Isaly, as the owner of a controlling interest in OrbiMed Advisors LLC and OrbiMed Capital II LLC, is the beneficial owner of approximately 4.16% of the outstanding Shares of the Issuer. OrbiMed Advisors LLC is the beneficial owner of approximately 0.34% of the outstanding Shares of the Issuer and OrbiMed Capital II LLC is the beneficial owner of approximately 3.82% of the outstanding Shares of the Issuer.

None of the Reporting Persons have acquired or disposed of any additional Shares of the Issuer since December 2, 2005.

#### Item 4. Purpose of Transaction.

As described more fully in Item 3 above, this statement relates to the sale of Shares by the Reporting Persons. The Shares sold by the Reporting Persons were sold in accord with the investment programs of each of Caduceus Private Investments II, LP, Caduceus Private Investments II (QP), LP and UBS Juniper Crossover Fund, LLC. The Reporting Persons have no present intention of acquiring control of the Issuer's business on behalf of the clients listed in the preceding sentence or any other of their respective advisory clients.

The Reporting Persons were previously granted and exercised the right to appoint an observer to the Board of Directors (the "Board") of the Issuer, so as to permit active monitoring of the operations of the Issuer. Carl L. Gordon currently serves as the Reporting Persons' observer to the Board.

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.

Item 5. Interest in Securities of the Issuer.

(a)-(b) As of the date of this filing, OrbiMed Advisors LLC, OrbiMed Capital II LLC, and Samuel D. Isaly may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Common Stock described in Item 3. Based upon information contained in the most recent available filing by the Issuer with the SEC, such Shares constitute approximately 4.16% of the issued and outstanding Shares. As described above in Item 2, Isaly owns, pursuant to the terms of the limited liability company agreement of OrbiMed Advisors LLC and OrbiMed Capital II LLC, a controlling interest in the outstanding limited liability company interests of such entity. As a result, Isaly and OrbiMed Advisors LLC and OrbiMed Capital II LLC share power to direct the vote and to direct the disposition of the Common Stock described in Item 3.

(c) No transactions with respect to the Shares were effected during the past sixty (60) days by any of the Reporting Persons (other than as described above under Item 3).

(d) Not applicable.

(e) Not applicable.

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

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 or withholding of proxies.

Item 7. Materials to be Filed as Exhibits.

Exhibit	Description
A.	Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Capital II 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: December 6, 2005

OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly

-----  
Name: Samuel D. Isaly

Title: Managing Partner

OrbiMed Capital II 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.

Name	Position with Reporting Person	Principal Occupation
Samuel D. Isaly	Managing Partner	Partner OrbiMed Advisors LLC
Michael Sheffery	Partner	Partner OrbiMed Advisors LLC
Carl L. Gordon	Partner	Partner OrbiMed Advisors LLC
Sven Borho German and Swedish Citizen	Partner	Partner OrbiMed Advisors LLC
Jonathan T. Silverstein	Partner	Partner OrbiMed Advisors LLC
Eric A. Bittelman	Chief Financial Officer and Chief Compliance Officer	CFO/CCO OrbiMed Advisors LLC

Schedule II

The name and present principal occupation of each of the executive officers and directors of OrbiMed Capital II 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.

Name	Position with Reporting Person	Principal Occupation
Samuel D. Isaly	Managing Partner	Partner OrbiMed Capital II LLC
Michael Sheffery	Partner	Partner OrbiMed Capital II LLC
Carl L. Gordon	Partner	Partner OrbiMed Capital II LLC
Sven Borho German and Swedish Citizen	Partner	Partner OrbiMed Capital II LLC
Jonathan T. Silverstein	Partner	Partner OrbiMed Capital II LLC
Eric A. Bittelman	Chief Financial Officer and Chief Compliance Officer	CFO/CCO OrbiMed Capital II LLC

EXHIBIT INDEX

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

JOINT FILING AGREEMENT

The undersigned hereby agree that the Statement on this Schedule 13D, dated December 2, 2005 (the "Schedule 13D"), with respect to the Common Stock, par value \$0.01 per share, of Biocryst Pharmaceuticals, Inc. is filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities and Exchange Act of 1934, as amended, and that this Agreement shall be included as an Exhibit to this Schedule 13D. Each of the undersigned agrees to be responsible for the timely filing of the Schedule 13D, and for the completeness and accuracy of the information concerning itself contained therein. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 6th day of December 2005.

OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly  
-----  
Name: Samuel D. Isaly  
Title: Managing Partner

OrbiMed Capital II LLC

By: /s/ Samuel D. Isaly  
-----  
Name: Samuel D. Isaly  
Title: Managing Partner

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