SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(D)
OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report: August 3, 2005

BioCryst Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in Charter)

Delaware	**000-23186**	**62-1413174**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification #)**

2190 Parkway Lake Drive, Birmingham, Alabama 35244
(Address of Principal Executive Office)

(205) 444-4600
(Registrant's telephone number, including area code)

Item 2.02. Results of Operations and Financial Condition:

On August 3, 2005, the Company issued a news release announcing its financial results for the quarter ended June 30, 2005, which also referenced a conference call to discuss these results and provide an update on the status of the Company's programs. A copy of the news release is furnished as exhibit 99.1 hereto and is incorporated by reference into Item 9.01 of Form 8-K.

Item 9.01. Financial Statements and Exhibits:

Exhibit No.	Description
99.1	Press release dated August 3, 2005 entitled "BioCryst Reports Second Quarter 2005 Financial Results"

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: August 3, 2005

BIOCRYST PHARMACEUTICALS, INC.

By: /s/ MICHAEL A. DARWIN

Michael A. Darwin
Chief Financial Officer and Chief Accounting Officer

EXHIBIT INDEX

Item	Description
99.1	Press release dated August 3, 2005 entitled “BioCryst Reports Second Quarter 2005 Financial Results”

Exhibit 99.1

BIOCRYST PHARMACEUTICALS, INC.
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BioCryst Pharmaceuticals, Inc.
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FOR IMMEDIATE RELEASE

BIOCRYST REPORTS SECOND QUARTER 2005 FINANCIAL RESULTS

Birmingham, Alabama – August 3, 2005 – BioCryst Pharmaceuticals, Inc. (Nasdaq NM: BCRX) today announced financial results for the second quarter ended June 30, 2005. The company reported revenues of $58,000 in the second quarter of 2005, compared to $43,000 in the second quarter of 2004. The net loss for the quarter ended June 30, 2005 was $5,648,000, or $0.22 per share, compared to a net loss of $5,057,000, or $0.23 per share, for the same period last year. As of June 30, 2005, the company had cash, cash equivalents and investments of $40.0 million.

Second Quarter 2005 Financial Results

Collaborative and other research and development revenues increased in the second quarter of 2005 to $58,000 compared to $43,000 in the same period last year primarily due to the additional revenue received from the National Institutes of Health related to the existing SBIR grant for support of our hepatitis C program. Our interest income was $110,000 more in the second quarter of 2005 as compared to the second quarter of 2004, primarily due to a more favorable interest rate environment.

Research and development expenses increased 21.0% to $5,263,000 in the three months ended June 30, 2005 from $4,348,000 in the three months ended June 30, 2004. The increase is primarily attributable to additional toxicology studies supporting the clinical development for the oral formulation of our lead drug candidate, Fodosine™, plus other expenses related directly to the clinical development for both Fodosine™ and BCX-4208. General and administrative expenses for the three months ended June 30, 2005 decreased 21.5% to $727,000 as compared to $926,000 for the same period in 2004, primarily due to a non-cash expense in 2004 related to stock options as a result of the amendment to our stock option plan approved by the shareholders in May 2004, which was partially offset by an increase in salary expense.

Year to Date 2005 Financial Results

Collaborative and other research and development revenue was $99,000 for the six months ended June 30, 2005 compared to $43,000 for 2004 due to the reasons noted above for the quarter. Interest income for six months ended June 30, 2005 was $469,000, a 32.1% increase compared to $355,000 in 2004, primarily due to a more favorable interest rate environment in 2005.

Research and development expenses for the six months ended June 30, 2005 were $10,438,000, an 11.9% increase over 2004 expenses of $9,331,000, which is directly related to the development progress made for our lead drug candidates during 2005. General and administrative expenses for the six months ended June 30, 2005 were $1,423,000, a decrease of 10.3% compared to the 2004 expense of $1,586,000, primarily due to a non-cash expense in 2004 related to stock options as a result of the amendment to our stock option plan approved by the shareholders in May 2004, which was partially offset by an increase in salary expense. The net loss for the six months ended June 30, 2005 was $11,293,000, or $0.45 per share, compared to a net loss of $10,519,000, or $0.51 per share for the same period in 2004.

Pipeline Highlights

“BioCryst continues to make significant advances in its corporate and clinical programs, and we believe we could potentially start the Phase IIb trial of our lead PNP inhibitor, Fodosine™ by the end of this year,” said Charles E. Bugg, Chairman and Chief Executive Officer of BioCryst. “We expect that trial will be a pivotal study using both intravenous and oral formulations of Fodosine™ for the treatment of relapsed and refractory T-cell leukemia patients. In support of the Phase IIb trial of Fodosine™, we are in the process of compiling the Special Protocol Assessment we discussed with the FDA in March and expect to submit those documents to the FDA within the next two weeks.”

Dr. Bugg added, “Within the next few days, we plan to initiate a second Phase I trial of our second-generation PNP inhibitor, BCX-4208. That trial will be an escalating, multi-dose pharmacokinetic study of BCX-4208 in healthy volunteers. We believe the trial will provide us with the additional safety and pharmacokinetic data necessary to support Phase II studies of BCX-4208 in multiple indications, potentially including psoriasis, rheumatoid arthritis, Crohn’s disease, transplant rejection and graft vs. host disease. We expect the first Phase II clinical trial of BCX-4208 to be initiated in psoriasis patients toward the end of this year or early next year.”

“Parallel to our clinical work, we have recently initiated broad discussions with potential pharmaceutical and biotech partners to work with BioCryst in bringing our programs forward to the market. We are continuing to advance our programs steadily through clinical development while these discussions are underway, and we do not have any fixed partnering agenda. The goal is to align ourselves with partners that can help with international development of our drug candidates, offset the financing of the clinical development programs, and provide the large marketing clout necessary to maximize the value of our therapeutics while BioCryst retains co-promotion rights in the U.S.”

“2005 has already been an exciting year for BioCryst and I am enthusiastic about the milestones still to come,” said Dr. Bugg.

Conference Call

The Company will sponsor a conference call at 10:00 am ET on Wednesday, August 3, 2005 to discuss the financial results and the status of each of our programs in more detail. This call is open to the public and can be accessed live either over the Internet from either www.biocryst.com or http://phx.corporate-ir.net/playerlink.zhtml?c=74878&s=wm&e=1109210 or by dialing 1-800-946-0741 (U.S.) or 1-719-457-2650 (international). No passcode is needed for the call.

About BioCryst

BioCryst Pharmaceuticals, Inc. designs, optimizes and develops novel drugs that block key enzymes involved in cancer, cardiovascular diseases, autoimmune diseases, and viral infections. BioCryst integrates the necessary disciplines of biology, crystallography, medicinal chemistry and computer modeling to effectively use structure-based drug design to discover and develop small molecule pharmaceuticals.

BioCryst’s lead product candidate, Fodosine™, is a transition-state analog inhibitor of the target enzyme purine nucleoside phosphorylase (PNP). The drug is currently in a Phase IIa trial for patients with T-cell leukemia and a Phase I trial with an oral formulation in cutaneous T-cell lymphoma (CTCL). BioCryst also plans to initiate a Phase I/II trial in B-cell acute lymphoblastic leukemia and a Phase II trial in chronic lymphocytic leukemia (CLL) during 2005. Fodosine™ has been granted Orphan Drug status by the U.S. Food and Drug Administration for three indications: T-cell non-Hodgkin’s lymphoma, including CTCL; CLL and related leukemias including T-cell prolymphocytic leukemia, adult T-cell leukemia, and hairy cell leukemia; and for treatment of acute lymphoblastic leukemia (ALL). Additionally the FDA has granted “fast track” status to the development of Fodosine™ for the treatment of relapsed or refractory T-cell leukemia. A Phase I study with BioCryst’s second-generation PNP inhibitor, BCX-4208, was recently completed in healthy volunteers. A Phase I multi-dose study with BCX-4208 will follow, with the goal of initiating a Phase II study in patients with psoriasis in late 2005 or early 2006. In addition, BioCryst has other enzyme targets in drug discovery including hepatitis C polymerase and tissue factor/factor VIIa. For more information about BioCryst, please visit the company’s web site at www.biocryst.com.

Forward-looking statements

These statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Some of the factors that could affect the forward-looking statements contained herein include that we may not be able to enroll the required number of subjects in clinical trials of Fodosine™ or BCX-4208, that each of the Phase IIa trial for patients with T-cell leukemia, Phase I trial of BCX-4208 and the Phase I trial of Fodosine™ for treatment of patients with cutaneous T-cell lymphoma may not be successfully completed, that BioCryst may not commence as expected additional trials with Fodosine™ and with BCX-4208, that Fodosine™, BCX-4208, or any of our other product candidates may not receive required regulatory clearances from the FDA, that Phase IIa clinical trials of Fodosine™ may not show the drug is effective over the 6-week period, that ongoing and future clinical trials may not have positive results, that we may not be able to obtain a Special Protocol Assessment or otherwise be able to complete successfully the Phase IIb trial that is currently planned to be pivotal, that we may not be able to continue future development of Fodosine™, BCX-4208 or any of our other current development programs including tissue factor/factor VIIa and hepatitis C polymerase, that Fodosine™, BCX-4208 or our other development programs may never result in future product, license or royalty payments being received by BioCryst, that BioCryst may not reach favorable agreements with potential pharmaceutical and biotech partners for further development of its product candidates, that BioCryst may not have sufficient cash to continue funding the development, manufacturing, marketing or distribution of its products and that additional funding, if necessary, may not be available at all or on terms acceptable to BioCryst. Please refer to the documents BioCryst files periodically with the Securities and Exchange Commission, specifically BioCryst's most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and current reports on Form 8-K, which identify important factors that could cause the actual results to differ materially from those contained in the projections or forward-looking statements.

BIOCRYST PHARMACEUTICALS, INC.
FINANCIAL SUMMARY

Condensed Statements of Operations (unaudited)
(in thousands, except per share)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
Revenues:				
Collaborative and other research and development	$ 58	$ 43	$ 99	$ 43
Total revenues	58	43	99	43
Expenses:				
Research and development	5,263	4,348	10,438	9,331
General and administrative	727	926	1,423	1,586
Total expenses	5,990	5,274	11,861	10,917
Loss from operations	(5,932)	(5,231)	(11,762)	(10,874)
Interest and other income, net	284	174	469	355
Net loss	$ (5,648)	$ (5,057)	$ (11,293)	$ (10,519)
Amounts per common share:				
Net loss per share	$ (0.22)	$ (0.23)	$ (0.45)	$ (0.51)
Weighted average shares outstanding	26,149	21,618	24,891	20,602

Balance Sheet Data (in thousands)

	June 30, 2005	December 31, 2004
	(Unaudited)	(Audited)
Cash, cash equivalents and securities	$ 39,962	$ 28,703
Total assets	43,425	32,468
Accumulated deficit	(137,057)	(125,764)
Stockholders' equity	40,864	29,334