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: October 20, 2004

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)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

|_| Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

|_| Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

|_| Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

|_| Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13a-4(c))

Item 2.02. Results of Operations and Financial Condition:

On October 20, 2004, the Company issued a news release announcing its financial results for the quarter ended September 30, 2004. 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 October 20, 2004 entitled "BioCryst Reports Third Quarter 2004 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: October 20, 2004

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 October 20, 2004 entitled "BioCryst Reports Third Quarter 2004 Financial Results"

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FOR IMMEDIATE RELEASE

BIOCRYST REPORTS THIRD QUARTER 2004 FINANCIAL RESULTS

Birmingham, Alabama – October 20, 2004 – BioCryst Pharmaceuticals, Inc. (Nasdaq NM: BCRX) today announced financial results for the third quarter ended September 30, 2004. The Company reported revenues of $270,000, including interest and other income, in the third quarter of 2004, compared to $222,000 in the third quarter of 2003. The net loss for the quarter ended September 30, 2004 was $5,296,000, or $0.24 per share, compared to a net loss of $3,409,000, or $0.19 per share, for the same period last year. As of September 30, 2004, the Company had cash, cash equivalents and investments of $34.1 million.

Collaborative and other research and development revenue increased to $116,000 for the quarter ended September 30, 2004 compared to $0 for the same quarter in 2003, due to revenue from the National Institutes of Health (NIH) related to the grant received for our hepatitis C inhibitor program. This increase was partially offset by decrease in interest and other income by 30.6% to $154,000 in the third quarter of 2004 compared to $222,000 in the third quarter of 2003. This decrease was due to the lower interest rate environment.

Research and development expenses increased 55.8% to $4,838,000 in the three months ended September 30, 2004 from $3,105,000 in the three months ended September 30, 2003. The increase is primarily attributed to the costs associated with the continued development of our lead drug candidate, BCX-1777, officially known as forodesine hydrochloride. These costs include the ongoing clinical studies and manufacturing of compound on a larger scale. General and administrative expenses for the three months ended September 30, 2004 increased 38.4% to $728,000 as compared to $526,000 for the same period in 2003. This increase is primarily related to an increase in professional fees.

Revenues for the nine months ended September 30, 2004 were $668,000, compared to $796,000 for the nine months ended September 30, 2003. The net loss for the nine months ended September 30, 2004 was $15,815,000, or $0.75 per share, compared to a net loss of $9,450,000 or $0.53 per share, for the same period last year. The decrease in revenues in the first nine months of 2004 was due to the reduction in interest and other income as a result of a lower interest rate environment, which was partially offset by the revenue received from the NIH. Our expenses for the nine months ended September 30, 2004 were more than the same period in 2003 in each category, due to essentially the same reasons discussed for the changes in the third quarter.

“BioCryst has made significant progress during the third quarter. Our oncology clinical trials were expanded earlier this week with the initiation of a Phase I trial with an oral formulation of forodesine hydrochloride in patients with cutaneous T-cell lymphoma,” said Charles E. Bugg, Chairman and Chief Executive Officer of BioCryst. “We continue to add clinical sites for our Phase IIa T-cell leukemia trial, and we expect to initiate a Phase I/II trial with forodesine hydrochloride in patients with B-cell acute lymphoblastic leukemia during the fourth quarter. Additionally, we anticipate the initiation of our clinical trial program for our second PNP inhibitor, BCX-4208, during the fourth quarter of this year.”

The Company will sponsor a conference call at 10:00 am ET on Wednesday, October 20, 2004, which is open to the public. Interested investors can listen to the call live over the Internet from the investor relations website at www.biocryst.com or by dialing 1-800-289-0498, and providing the passcode number 846404.

BioCryst Pharmaceuticals, Inc. designs, optimizes and develops novel drugs that block key enzymes essential for 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, forodesine hydrochloride (BCX-1777), an inhibitor of purine nucleoside phosphorylase (PNP), is currently in a Phase IIa trial for patients with T-cell malignancies, and enrollment is underway in a Phase I trial of oral forodesine hydrochloride in patients with cutaneous T-cell lymphoma (CTCL). A Phase I/II trial is planned for B-cell acute lymphoblastic leukemia during 2004. A second generation PNP inhibitor, BCX-4208, is in preclinical development with plans to start a Phase I trial during 2004. In addition, BioCryst has several new enzyme targets in drug discovery including tissue factor/factor VIIa and hepatitis C polymerase. For more information about BioCryst, please visit the company’s web site at www.biocryst.com.

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 forodesine hydrochloride, that the Phase I trials of forodesine hydrochloride for treatment of patients with cutaneous T-cell lymphoma and the Phase I/II trial for treatment of patients with B-cell acute lymphoblastic leukemia may not be successfully completed, that BioCryst may not commence as expected additional Phase II trials with forodesine hydrochloride and Phase I studies with BCX-4208, that forodesine hydrochloride or any of our other product candidates may not receive required regulatory clearances from the FDA, that Phase IIa clinical trials of forodesine hydrochloride may not show the drug is effective over the 6-week period, that we may not be able to obtain a Special Protocol Assessment or otherwise be able to complete successfully the Phase IIb that is currently planned, that we may not be able to continue future development of forodesine hydrochloride or any of our other current development programs including BCX-4208, tissue factor/factor VIIa and hepatitis C polymerase, that forodesine hydrochloride or our other development programs may never result in future product, license or royalty payments being received by BioCryst, 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, which identify important factors that could cause the actual results to differ materially from those contained in the projections or forward-looking statements.

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BIOCRYST PHARMACEUTICALS, INC.
FINANCIAL SUMMARY

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2004	2003	2004	2003
Revenues:				
Collaborative and other research and development	$ 116	$ 0	$ 159	$ 0
Interest income and other	154	222	509	796
Total revenues	270	222	668	796
Expenses:				
Research and development	4,838	3,105	14,168	8,559
General and administrative	728	526	2,315	1,687
Total expenses	5,566	3,631	16,483	10,246
Net loss	$(5,296)	$(3,409)	$(15,815)	$(9,450)
Net loss per share	$ (0.24)	$ (0.19)	$ (0.75)	$ (0.53)
Weighted average shares outstanding	21,706	17,685	20,973	17,671

Balance Sheet Data (in thousands)

	September 30, 2004 (Unaudited)	December 31, 2003 (Audited)
Cash, cash equivalents and securities	$ 34,124	$ 25,732
Total assets	37,885	30,096
Accumulated deficit	(120,475)	(104,660)
Stockholders' equity	34,317	28,447