

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: April 21, 2004

BioCryst Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in Charter)

Delaware
(State or other jurisdiction
of incorporation)

000-23186
(Commission
File Number)

62-1413174
(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 7. Exhibits.

Exhibit No	Description
99.1	Press release dated April 21, 2004 entitled "BioCryst Reports First Quarter 2004 Financial Results"

Item 12. Results of Operations and Financial Condition:

On April 21, 2004, the Company issued a news release announcing its financial results for the quarter ended March 31, 2004. A copy of the news release is furnished as exhibit 99.1 hereto and is incorporated by reference into Item 12 of Form 8-K.

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: April 21, 2004

BioCryst Pharmaceuticals, Inc.

By: /s/ Michael A. Darwin

Michael A. Darwin
Chief Financial Officer and Chief
Accounting Officer

EXHIBIT INDEX

Item	Description
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FOR IMMEDIATE RELEASE

BIOCRYST REPORTS FIRST QUARTER 2004 FINANCIAL RESULTS

Birmingham, Alabama – April 21, 2004 – BioCryst Pharmaceuticals, Inc. (Nasdaq NM: BCRX) today announced financial results for the first quarter ended March 31, 2004. The Company reported revenues of \$181,000 in the first quarter of 2004, compared to \$308,000 in the first quarter of 2003. The net loss for the quarter ended March 31, 2004 was \$5,462,000, or \$0.28 per share, compared to a net loss of \$2,788,000, or \$0.16 per share, for the same period last year. As of March 31, 2004, the Company had cash, cash equivalents and investments of \$41.8 million.

Interest and other income decreased 41.2% to \$181,000 in the first quarter of 2004 compared to \$308,000 in the first quarter of 2003. This decrease was due to a reduction in interest rates.

Research and development expenses increased 100.2% to \$4,983,000 in the three months ended March 31, 2004 from \$2,489,000 in the three months ended March 31, 2003. The increase is primarily attributable to costs related to the clinical development of BioCryst's lead drug candidate, BCX-1777 and the preclinical testing required for the potential clinical development of BCX-4208. General and administrative expenses for the three months ended March 31, 2004 increased 8.7% to \$660,000 as compared to \$607,000 for the same period in 2003, the result of higher insurance costs and other professional fees.

"We have made exciting progress in our oncology clinical trials with BCX-1777 during the past quarter," said Charles E. Bugg, Chairman and Chief Executive Officer of BioCryst. "We have initiated our Phase II trial for treatment of patients with T-cell leukemia and are nearing completion of our Phase I trials in patients with cutaneous T-cell lymphoma and hematologic malignancies. Results to date have been encouraging, and we are working diligently to meet our goal of initiating additional Phase II trials with BCX-1777 and Phase I studies with our second PNP inhibitor, BCX-4208, during the coming year."

The Company will sponsor a conference call at 10:00 am EDT on Wednesday, April 21 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 1-800-395-0708, and providing the passcode number 145089.

BioCryst Pharmaceuticals, Inc. designs, optimizes and develops novel drugs that block key enzymes essential for cancer, cardiovascular and 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, BCX-1777, an inhibitor of purine nucleoside phosphorylase (PNP), is currently in a Phase IIa trial for patients with T-cell malignancies with additional Phase IIa trials planned for hematologic malignancies, and other refractory cancers. A second generation PNP inhibitor, BCX-4208, is in preclinical development with plans to file an IND 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 BCX-1777, that the Phase I trials of BCX-1777 for treatment of patients with T-cell lymphoma and hematologic malignancies may not be successfully completed, that BioCryst may not commence as expected additional Phase II trials with BCX-1777 and Phase I studies with BCX 4208, that BCX-1777 or any of our other product candidates may not receive required regulatory clearances from the FDA, that Phase IIa clinical trials of BCX-1777 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 BCX-1777 or any of our other current development programs including BCX-4208, tissue factor/factor VIIa and hepatitis C polymerase, that BCX-1777 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 March 31,	
	2004	2003
Revenues:		
Collaborative and other research and development	\$ 0	\$ 0
Interest and other	181	308
	181	308
Total revenues	181	308
Expenses:		
Research and development	4,983	2,489
General and administrative	660	607
	5,643	3,096
Total expenses	5,643	3,096
Net loss	\$ (5,462)	\$ (2,788)
Net loss per share	\$ (0.28)	\$ (0.16)
Weighted average shares outstanding	19,587	17,663

Balance Sheet Data (in thousands)

	March 31, 2004 (Unaudited)	December 31, 2003 (Audited)
Cash, cash equivalents and securities	\$ 41,814	\$ 25,732
Total assets	45,953	30,096
Accumulated deficit	(110,122)	(104,660)
Stockholders' equity	43,428	28,447