**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: May 9, 2007**

# 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 (see General Instruction A.2 below):

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

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

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 210.14d-2(b))

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

**Item 2.02. Results of Operations and Financial Condition:**

On May 9, 2007, the Company issued a news release announcing its financial results for the quarter ended March 31, 2007, 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 May 9, 2007 entitled "BioCryst Reports First Quarter 2007 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: May 9, 2007

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 May 9, 2007 entitled “BioCryst Reports First Quarter 2007 Financial Results”. |

Exhibit 99.1

BIOCRYST PHARMACEUTICALS, INC.
2190 PARKWAY LAKE DRIVE
BIRMINGHAM, AL 35244
205-444-4600 205-444-4640 FAX
www.biocryst.com

Contact:
BioCryst Pharmaceuticals, Inc.
Jonathan M. Nugent
V.P. Corporate Communications
(205) 444-4633

**FOR IMMEDIATE RELEASE**

**BIOCRYST REPORTS FIRST QUARTER 2007 FINANCIAL RESULTS**

**Birmingham, Alabama — May 9, 2007 —** BioCryst Pharmaceuticals, Inc. (Nasdaq: BCRX) today announced financial results for the quarter ended March 31, 2007. The Company reported revenues of $9,159,000 in the first quarter of 2007, compared to $771,000 in the first quarter of 2006, primarily due to revenue recognized from the contract with the U.S. Department of Health and Human Services. The net loss for the quarter ended March 31, 2007 was $8,825,000, or $0.30 per share, compared to a net loss for the quarter ended March 31, 2006 of $7,882,000, or $0.27 per share.

Research and development (R&D) expenses were $16,195,000 in the first quarter of 2007, compared to R&D expenses of $8,043,000 in the first quarter of 2006. The increase is primarily attributable to costs associated with the advancement of our clinical programs, the costs related to manufacturing our lead drug candidates and the increase in personnel related costs, which included an increase in the non-cash share-based compensation charge.

General and administrative (G&A) expenses for the first quarter of 2007 were $2,372,000 compared to G&A expenses of $1,495,000 for the same quarter in 2006. The higher G&A expenses were primarily due to an increase in personnel related costs, including an increase of $561,000 in non-cash share-based compensation costs, and additional professional fees.

As of March 31, 2007, the Company had cash, cash equivalents and investments of $42.8 million.

“In the first quarter of this year we took an important step forward by securing the resources necessary to push forward with the development of peramivir,” said Jon P. Stonehouse, Chief Executive Officer of BioCryst. “During the quarter we were awarded a $102.6 million, four year contract from the Department of Health and Human Services that will fund the ongoing clinical trials of peramivir. This award, combined with our recently announced partnership with Shionogi for the drug’s development in Japan, will allow us to facilitate the clinical study of peramivir around the world. We are continuing to enroll patients in the phase II i.m. trial and have now moved into Hong Kong and will soon start additional sites in the Southern Hemisphere in an effort to complete this trial as soon as possible so we are able to start the phase III during the 2007-2008 flu season.”

Mr. Stonehouse added, “We also continue to advance our PNP compounds and are working with the FDA to finalize the protocol for our Phase IIb clinical trial of Fodosine™ in CTCL. We anticipate the initiation of that pivotal clinical trial and the initiation of a Phase IIa trial of our next generation PNP inhibitor, BCX-4208 during the fiscal third quarter. In addition, we expect to share information about further advancement of compounds in our discovery-stage pipeline later in the year. This is an important year for BioCryst and we are looking toward the future by continuing to invest in our pipeline and reinforcing our dedication to building a profitable, multi-product company.”

The company will sponsor a conference call at 10:00 a.m. Eastern Time on Wednesday, May 9, 2007 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 www.biocryst.com or by dialing 1-866-293-8970 (U.S.) or 1-913-312-1230 (international) No passcode is needed for the call.

**About BioCryst**

BioCryst Pharmaceuticals, Inc. is a leader in the use of crystallography and structure-based drug design for the development of novel therapeutics to treat cancer, cardiovascular diseases, autoimmune diseases, and viral infections. The company is advancing multiple internal programs toward potential commercialization including Fodosine™ in oncology, BCX-4208 in transplantation and autoimmune diseases and peramivir in seasonal and life-threatening influenza. BioCryst has a worldwide partnership with Roche for the development and commercialization of BCX-4208, and is collaborating with Mundipharma for the development and commercialization of Fodosine™ in markets across Europe, Asia, Australia and certain neighboring countries. In January, 2007 the U.S. Department of Health and Human Services (DHHS) awarded a $102.6 million, four-year contract to BioCryst for advanced development of peramivir to treat seasonal and life-threatening influenza. In February 2007 BioCryst established a partnership with Shionogi & Co., to develop and commercialize peramivir in Japan. For more information about BioCryst, please visit the company's web site at http://www.biocryst.com.

**Forward-looking statements**

This press release contains forward-looking statements, including statements regarding future results, performance or achievements. 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 development and commercialization of Fodosine™ in both T-ALL and CTCL may not be successful, that we may not resolve satisfactorily the particulate matter issue with the intravenous formulation of Fodosine™, that we may not obtain a satisfactory SPA for Fodosine™ for treatment of CTCL promptly or at all, that DHHS could reduce or eliminate funding for peramivir, that we or our licensees may not be able to enroll the required number of subjects in planned clinical trials of our product candidates and that such clinical trials may not be successfully completed, that BioCryst or its licensees may not commence as expected additional human clinical trials with our product candidates, that our product candidates may not receive required regulatory clearances from the FDA, that ongoing and future clinical trials may not have positive results, that we may not be able to complete successfully the Phase IIb trial for Fodosine™ that is currently planned to be pivotal, that we may not be able to commence the proposed Phase III trial for peramivir or the proposed Phase IIa trial for BCX-4208 within the time frame we currently expect or at all, that we may not be able to announce preclinical developments for additional compounds by year-end 2007 as currently proposed, that we or our licensees may not be able to continue future development of our current and future development programs, that our 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, 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 March 31, | |
|---|---|---|
| | 2007 | 2006 |
| Revenues: | | |
| Collaborative and other research and development | $ 9,159 | $ 771 |
| Expenses: | | |
| Research and development | 16,195 | 8,043 |
| General and administrative | 2,372 | 1,495 |
| Total expenses | 18,567 | 9,538 |
| Loss from operations | (9,408) | (8,767) |
| Interest and other income | 583 | 885 |
| Net loss | $ (8,825) | $ (7,882) |
| Basic and diluted net loss per common share | $ (0.30) | $ (0.27) |
| Weighted average shares outstanding | 29,274 | 28,938 |

**Balance Sheet Data** (in thousands)

| | March 31, 2007 (Unaudited) | December 31, 2006 (Audited) |
|---|---|---|
| Cash, cash equivalents and securities | $ 42,849 | $ 46,236 |
| Total assets | 67,916 | 68,485 |
| Accumulated deficit | (204,306) | (195,481) |
| Stockholders' equity | 13,993 | 21,155 |