UNITED STATES
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 (Date of earliest event reported): April 28, 2010

BioCryst Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**000-23186**	**62-1413174**
(State or other jurisdiction of incorporation)	*(Commission File Number)*	*(IRS Employer Identification No.)*

2190 Parkway Lake Drive, Birmingham, Alabama 35244
(Address of Principal Executive Offices) (Zip Code)

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

(Former name or former address, if changed since last report)

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:

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 240.14d-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 April 28, 2010, BioCryst Pharmaceuticals, Inc. (the "Company") issued a news release announcing recent corporate developments and its financial results for the quarter ended March 31, 2010, which also referenced a conference call to discuss these recent corporate developments and financial results. A copy of the news release is furnished as Exhibit 99.1 hereto and is incorporated herein by reference.

Item 7.01 Regulation FD Disclosure

The information furnished on Exhibit 99.1 is incorporated by reference under this Item 7.01 as if fully set forth herein.

The information furnished is not deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, is not subject to the liabilities of that section and is not deemed incorporated by reference in any filing under the Securities Act of 1933, as amended.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press release dated April 28, 2010 entitled "BioCryst Reports First Quarter 2010 Financial Results and Provides Corporate Update"

SIGNATURE

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 thereunto duly authorized.

BioCryst Pharmaceuticals, Inc.

By: /s/ Alane Barnes
Name: Alane Barnes
Title: General Counsel, Corporate Secretary

Date: April 28, 2010

INDEX TO EXHIBITS

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Exhibit 99.1

BIOCRYST REPORTS FIRST QUARTER 2010 FINANCIAL RESULTS AND PROVIDES CORPORATE UPDATE

Birmingham, Alabama — April 28, 2010 (Business Wire) — BioCryst Pharmaceuticals, Inc. (NASDAQ: BCRX) today announced financial results for the quarter ended March 31, 2010.

For the three months ended March 31, 2010, total revenues increased to $26.1 million compared to $4.4 million for the three months ended March 31, 2009. This $21.7 million increase was driven primarily by the recognition of a $7.0 million milestone payment from the Company's partner, Shionogi & Co., Ltd. (Shionogi), related to its achievement in obtaining marketing and manufacturing approval of intravenous (i.v.) peramivir in Japan, a $7.0 million increase in revenue from the contract with the Department of Health & Human Services (HHS) for the continued development of i.v. peramivir as compared to last year, as well as the sale of $6.4 million of peramivir active pharmaceutical ingredient (API) to collaborators Shionogi and Green Cross Corporation. In accordance with the license agreement with Shionogi, BioCryst also recorded revenue from royalties of $0.7 million related to Shionogi's sales of RAPIACTA® (peramivir) in Japan during the first quarter of 2010.

Research and development (R&D) expenses increased to $24.9 million for the first quarter of 2010 from $11.3 million in the same period of last year. The higher R&D expenses resulted primarily from a $4.9 million increase in clinical development costs associated with our peramivir program and $6.3 million of manufacturing costs associated with peramivir API production for Shionogi and Green Cross. During the current quarter, BioCryst also continued to incur expenses related to its ongoing studies of forodesine for the treatment in lymphoma and of BCX4208 for the treatment of gout.

General and administrative (G&A) expenses increased to $3.8 million for the first quarter of 2010 from $2.5 million for the first quarter of 2009. This increase was primarily due to higher consulting costs and operating expenses.

The Company's net loss for the three months ended March 31, 2010 was $2.6 million, or $0.06 per share, compared to a net loss of $9.3 million, or $0.24 per share for the three months ended March 31, 2009.

As of March 31, 2010, the Company held cash, cash equivalents and securities of $89.4 million, a decrease of $4.8 million compared to December 31, 2009.

For 2010, BioCryst continues to expect cash use to be between $25 and $30 million. Cash use will vary depending on clinical outcomes.

“This quarter marked major milestones in the transformation of BioCryst—the first commercial launch of a BioCryst discovered product in any country, the final peramivir regulatory milestone payment and first royalty payment from Shionogi from the initial sales of RAPIACTA® in Japan,” said Jon P. Stonehouse, President and Chief Executive Officer of BioCryst Pharmaceuticals. “Additionally, we continue to advance BioCryst’s pipeline, as demonstrated by the rapid progress and positive outcome of the BCX4208 gout clinical data announced today. We remain on course towards building an enduring and successful biopharmaceutical company.”

Recent Program Highlights

Peramivir Program

- The Phase 3 development program of i.v. peramivir is ongoing. Investigator sites in Argentina, Australia, Brazil, Chile, New Zealand, Peru and South Africa have recently been added to prepare for enrollment of hospitalized influenza patients during the upcoming Southern Hemisphere flu season, which typically starts in May or June.
- Additional studies to provide further evidence of efficacy are under discussion with the U.S. Food & Drug Administration and HHS**.**

Forodesine Program

- The pivotal Phase 2 study for forodesine in the treatment of cutaneous T-cell lymphoma (CTCL) achieved its protocol-specified objective of enrolling 100 late-stage patients (Stage IIB to IVA). The Company expects to report data from the study in the second half of 2010.
- The Phase 2 single-arm, open-label study evaluating 200 mg of forodesine twice-daily in patients with chronic lymphocytic leukemia (CLL) has reached its enrollment target of 26 patients and is ongoing. The Company expects to report data from this study in the second half of 2010.

BCX4208 Program

- In a separate press release issued today, BioCryst reported positive results from a planned interim analysis of its ongoing randomized, double-blind, placebo-controlled Phase 2a study to evaluate the efficacy and safety of BCX4208 in patients with gout. All three oral, once-daily doses of BCX4208 studied achieved a statistically significant reduction in serum uric acid levels from baseline compared to placebo at day 22. BCX4208 was generally safe and well-tolerated at the doses evaluated in this study.
- BioCryst is finalizing plans for an additional blinded Phase 2 study to evaluate the efficacy and safety of BCX4208 as monotherapy and in combination with allopurinol, another urate-lowering treatment for gout. The Company intends to complete this study by the end of 2010.

Conference Call and Web Cast

BioCryst's management team will host a conference call and Web cast on Wednesday, April 28, 2010 at 11:00 a.m. Eastern Time to discuss these financial results and recent corporate developments. To participate in the conference call, please dial 1-877-303-8027 (United States) or 1-760-536-5165 (International). No passcode is needed for the call. The Web cast can be accessed by logging onto http://www.biocryst.com. Please connect to the Web site at least 15 minutes prior to the start of the conference call to ensure adequate time for any software download that may be necessary.

About BioCryst

BioCryst Pharmaceuticals designs, optimizes and develops novel small-molecule pharmaceuticals that block key enzymes involved in infectious diseases, cancer and inflammatory diseases. BioCryst has progressed two novel compounds that are in late-stage pivotal clinical trials; peramivir, an anti-viral for influenza, and forodesine, a purine nucleoside phosphorylase (PNP) inhibitor for cutaneous T-cell lymphoma (CTCL). Additionally, BioCryst has a third product candidate, BCX4208—a next generation PNP inhibitor—in mid-stage trials for the treatment of gout. Utilizing crystallography and structure-based drug design, BioCryst continues to discover additional compounds and to progress others through pre-clinical and early development to address the unmet medical needs of patients and physicians. For more information, please visit the Company's Web site at 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 to the extent peramivir is used as a treatment for H1N1 flu (or other strains of flu), there can be no assurance that it will prove effective; that HHS may further condition, reduce or eliminate future funding of the peramivir program; that ongoing peramivir clinical trials or our peramivir program in general may not be successful; that the pivotal trial with forodesine in CTCL may not meet its endpoint; that development and commercialization of forodesine in CTCL may not be successful; that ongoing and future pre-clinical and clinical development of BCX4208 may not have positive results; 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 pre-clinical and clinical development may not have positive results; 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 be able to retain its current pharmaceutical and biotechnology partners for further development of its product candidates or it may not reach favorable agreements with potential pharmaceutical and biotechnology partners for further development of its product candidates; that our actual cash burn rate may not be

consistent with our expectations; 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, all of which identify important factors that could cause the actual results to differ materially from those contained in our projections and forward-looking statements.

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CONTACT: Robert Bennett, BioCryst Pharmaceuticals, +1-919-859-7910
Catherine Collier Kyroulis, WeissComm Group, +1-212-301-7174 (Media)

BIOCRYST PHARMACEUTICALS, INC.
FINANCIAL SUMMARY

Statements of Operations (Unaudited)
(in thousands, except per share)

	Three Months Ended March 31, 2010	2009
Revenues:		
Product sales	$ 325	$ —
Royalties	711	—
Collaborative and other research and development	25,035	4,359
Total revenues	26,071	4,359
Expenses:		
Cost of products sold	86	—
Research and development	24,917	11,289
General and administrative	3,797	2,457
Total expenses	28,800	13,746
Loss from operations	(2,729)	(9,387)
Interest and other income, net	134	95
Net loss	$ (2,595)	$ (9,292)
Basic and diluted net loss per common share	$ (0.06)	$ (0.24)
Weighted average shares outstanding	43,925	38,204

Balance Sheet Data (in thousands)

	March 31, 2010 (Unaudited)	December 31, 2009 (Note 1)
Cash, cash equivalents and securities	$ 89,438	$ 94,259
Receivables from collaborations	26,627	33,722
Total assets	124,655	142,190
Accumulated deficit	(265,315)	(262,720)
Stockholders' equity	85,527	86,266

Note 1: Derived from audited financial statements.