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): February 4, 2010

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 No.)*

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

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

(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 (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 February 4, 2010, BioCryst Pharmaceuticals, Inc. issued a news release announcing recent corporate developments and its financial results for the quarter and year ended December 31, 2009, 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 February 4, 2010 entitled "BioCryst Reports Fourth Quarter and Full Year 2009 Financial Results and Provides Corporate Update"

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: February 4, 2010

BioCryst Pharmaceuticals, Inc.

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

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release dated February 4, 2010 entitled “BioCryst Reports Fourth Quarter and Full Year 2009 Financial Results and Provides Corporate Update”

Exhibit 99.1

BIOCRYST REPORTS FOURTH QUARTER AND FULL YEAR 2009 FINANCIAL RESULTS AND PROVIDES CORPORATE UPDATE

Birmingham, Alabama — February 4, 2010 — BioCryst Pharmaceuticals, Inc. (NASDAQ: BCRX) today announced financial results for the fourth quarter and year ended December 31, 2009.

“Over the past year, BioCryst has made great strides towards the goal of building an enduring and successful biopharmaceutical company,” said Jon P. Stonehouse, President and Chief Executive Officer of BioCryst Pharmaceuticals. “Peramivir has delivered the first marketing authorization and first product sales revenue for a BioCryst discovered drug.”

Mr. Stonehouse continued, “We ended 2009 with a strong balance sheet and greater financial flexibility to advance our programs. In 2010, we look forward to seeing clinical data from a variety of our ongoing studies.”

Fourth Quarter Financial Results

For the three months ended December 31, 2009, total revenues were $54.9 million compared to $34.2 million for the three months ended December 31, 2008. This increase was driven by $22.9 million in product sales, primarily the $22.5 million order of 10,000 courses of intravenous (i.v.) peramivir from the Department of Health and Human Services (HHS), as well as the $7.0 million milestone payment from the Company’s partner, Shionogi & Co., Ltd., related to its filing of a New Drug Application (NDA) to seek regulatory approval for i.v. peramivir in Japan. During the current quarter, revenue from the contract with HHS for the development of peramivir for patients hospitalized with influenza also increased as two global Phase 3 studies were initiated. These increases in revenues were offset by lower amortization of deferred revenue from collaborations. Specifically, $26.5 million of previously deferred revenue related to the termination of the Company’s collaboration with Roche was recognized during the fourth quarter of 2008.

Research and development (R&D) expenses increased to $31.6 million for the fourth quarter of 2009 from $22.1 million in the prior year period. The higher R&D expenses resulted from an increase in clinical development costs associated with our peramivir program and an increase in manufacturing costs as the Company completed the production of approximately 130,000 courses of peramivir. In addition, clinical development costs increased during the current quarter as the Company initiated a Phase 2 study of BCX4208 for the treatment of gout. These increases were offset by reductions in clinical development and manufacturing costs for the forodesine program. During the fourth quarter 2008, the Company recognized $8.2 million of previously deferred expense from the termination of its collaboration with Roche.

General and administrative (G&A) expenses increased to $3.6 million for the fourth quarter of 2009 from $2.4 million for the fourth quarter of 2008, primarily due to increases in legal and consulting fees.

Interest income for the three months ended December 31, 2009 was $0.1 million as compared to $0.3 million for the same period of last year. The decrease was driven by a lower average cash and securities balance, as well as significantly lower yield earned on interest-bearing assets.

Net income for the fourth quarter of 2009 was $15.2 million, or $0.37 per basic share and $0.35 per diluted share, compared to net income of $10.1 million, or $0.26 per share for the fourth quarter of 2008.

As of December 31, 2009, the Company held cash, cash equivalents and investments of $94.3 million, an increase of $55.8 million during the fourth quarter of 2009. The higher cash position was driven primarily by receipt of $45.7 million in net proceeds from the public offering of BioCryst common stock, as well as $22.5 million of peramivir product sales to HHS.

The sale of 5,000,000 shares of BioCryst common stock was priced at $9.75 per share and the offering closed as planned on November 25, 2009.

Full Year 2009 Financial Results

Total revenues increased to $74.6 million for the year ended December 31, 2009 as compared to $56.6 million for the year ended December 31, 2008. This change was driven by product sales to HHS and the milestone payment from Shionogi during the fourth quarter 2009, as well as higher revenues related to the contract with HHS for the development of peramivir. These increases were offset by lower amortization of deferred revenue from our collaboration arrangements. 2008 revenue included the deferred revenue related to the termination of its collaboration with Roche mentioned above.

R&D expenses decreased to $72.3 million for 2009 from $73.3 million for the prior year due to reductions in clinical development and manufacturing costs related to the forodesine program, lower costs related to toxicology studies and pre-clinical compounds, as well as a decrease in general operating and personnel related costs. These decreases were offset by higher clinical development costs associated with peramivir and BCX4208, as well as an increase in manufacturing and consulting fees for the peramivir program.

G&A expenses increased to $11.5 million for 2009 from $10.4 million for 2008. This increase was primarily due to higher legal and consulting fees.

Interest income for 2009 was $0.3 million as compared to $2.4 million for the prior year, due to a lower average cash and securities balance as well as significantly lower yield earned on interest-bearing assets.

The net loss for the year ended December 31, 2009 was $13.5 million, or $0.35 per share, compared to a net loss of $24.7 million, or $0.65 per share for the year ended December 31, 2008.

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

Recent Program Highlights

Peramivir Program

- On January 27, BioCryst's partner Shionogi announced the commercial launch of RAPIACTA (i.v. peramivir) to treat patients with influenza in Japan. This launch occurred less than two weeks following marketing and manufacturing approval for RAPIACTA in Japan.
- In November 2009, BioCryst received an initial order for 10,000 courses of i.v peramivir (600 mg once-daily for five days) with a value of $22.5 million under a newly issued contract with HHS. Under the contract, HHS may place additional orders, up to a total of 40,000 courses of i.v. peramivir.
- BioCryst's partner Green Cross Corporation filed for approval of peramivir in South Korea. Countries that have approved, ordered or authorized use of peramivir during this flu season include the U.S., Japan, Israel, Mexico, Australia and South Korea.
- In January, BioCryst announced two new partners to exclusively represent peramivir for stockpiling opportunities in their territories: Merck Serono for Europe, Russia, Canada and Singapore; and Hikma Pharmaceuticals PLC for the Middle East and North Africa (MENA) region, excluding Israel. Together, BioCryst and its seven regional partners for peramivir cover most of the world's pharmaceutical markets.

Forodesine Program

- In January 2010, 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) is beyond half way to its enrollment target of 26 patients and is ongoing.

BCX4208 Program

- During the fourth quarter 2009, BioCryst began enrolling a randomized, double-blind, placebo-controlled Phase 2 study to evaluate the efficacy and safety of BCX4208 in subjects with gout. The study's primary objective is to determine the effect of different doses of orally administered BCX4208 on serum uric acid levels in patients with gout. Results from the first part of this study are expected in the second quarter of 2010.
- BioCryst is evaluating alternatives for an additional blinded study to evaluate the efficacy and safety of BCX4208 as an add-on treatment with another urate-lowering treatment for gout that has a different mechanism of action.

Conference Call and Web Cast

BioCryst's management team will host a conference call and Web cast on Thursday, February 4, 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 1-888-206-4913 (United States) or 1-913-312-9315 (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 into 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). 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 cutaneous T-cell lymphoma (CTCL) may not meet its endpoint; that development and commercialization of forodesine in CTCL may not be successful; 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

BIOCRYST PHARMACEUTICALS, INC.
FINANCIAL SUMMARY

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

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2009	2008	2009	2008
Revenues:				
Product sales	$ 22,922	$ —	$ 22,922	$ —
Collaborative and other research and development	31,973	34,240	51,667	56,561
Total revenues	54,895	34,240	74,589	56,561
Expenses:				
Cost of products sold	4,544	—	4,544	—
Research and development	31,619	22,060	72,302	73,327
General and administrative	3,647	2,376	11,481	10,399
Total expenses	39,810	24,436	88,327	83,726
Income (loss) from operations	15,085	9,804	(13,738)	(27,165)
Interest and other income, net	66	266	286	2,433
Net income (loss)	$ 15,151	$ 10,070	$ (13,452)	$ (24,732)
Net income (loss) per share:				
Basic	$ 0.37	$ 0.26	$ (0.35)	$ (0.65)
Diluted	$ 0.35	$ 0.26	$ (0.35)	$ (0.65)
Weighted average shares outstanding:				
Basic	40,778	38,126	38,926	38,062
Diluted	43,041	38,355	38,926	38,062

Balance Sheet Data (in thousands)

	December 31, 2009 (Unaudited)	December 31, 2008 (Note 1)
Cash, cash equivalents and securities	$ 94,259	$ 63,314
Receivables from collaborations	33,722	11,982
Total assets	142,190	84,692
Accumulated deficit	(262,720)	(249,268)
Stockholders' equity	86,266	46,426

Note 1: Derived from audited financial statements.