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 6, 2009

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 6, 2009, BioCryst Pharmaceuticals, Inc. (the "Company") issued a news release announcing its financial results for the quarter and year ended December 31, 2008, which also referenced a conference call to discuss these results and recent corporate developments. A copy of the news release is furnished as exhibit 99.1 hereto and is incorporated herein by reference.

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 6, 2009 entitled "BioCryst Reports Fourth Quarter and Year End 2008 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 6, 2009

BioCryst Pharmaceuticals, Inc.

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

EXHIBIT INDEX

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Exhibit 99.1

BIOCRYST PHARMACEUTICALS, INC.
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BIOCRYST REPORTS FOURTH QUARTER AND YEAR END 2008 FINANCIAL RESULTS AND PROVIDES CORPORATE UPDATE

Birmingham, Alabama — February 6, 2009 — BioCryst Pharmaceuticals, Inc. (Nasdaq: BCRX) today announced financial results for the fourth quarter and year ended December 31, 2008.

Fourth Quarter 2008 Financial Results

For the three months ended December 31, 2008, the Company reported collaborative and other research and development revenues of $34.2 million, compared to $28.2 million for the three months ended December 31, 2007. This increase was driven by the recognition of $26.5 million of previously deferred revenue related to the termination of the Company's collaboration with Roche, offset by a reduction in revenue from the contract with the U.S. Department of Health and Human Services (HHS) for the development of peramivir. Furthermore, during the quarter ended December 31, 2007, the Company recognized a $7.0 million milestone payment received from Shionogi & Co., Ltd. (Shionogi).

Research and development (R&D) expenses were $22.1 million for the three months ended December 31, 2008, compared to $29.1 million for the three months ended December 31, 2007. The decrease in R&D expenses was primarily attributable to a reduction in clinical development costs associated with the peramivir program, a reduction in manufacturing costs associated with both the peramivir and Forodesine HCl programs and a reduction in costs incurred related to the Company's preclinical programs. These reductions were offset by an increase in clinical development costs in the Forodesine HCl program as well as the recognition of $8.2 million of previously deferred expense related to the termination of the Company's collaboration with Roche.

General and administrative (G&A) expenses were $2.4 million for the three months ended December 31, 2008, compared to $2.5 million for the three months ended December 31, 2007.

Net income for the quarter ended December 31, 2008, was $10.1 million, or $0.26 per share, compared to a net loss for the quarter ended December 31, 2007, of $2.3 million, or $0.06 per share.

Year End 2008 Financial Results

Collaborative and other R&D revenues were $56.6 million for the year ended December 31, 2008, compared to $71.2 million for the year ended December 31, 2007. This decrease was partially driven by a reduction in revenue from the contract with HHS for the development of peramivir, plus a $4.9 million reserve recorded by the Company during the second quarter of 2008 for amounts that were previously expected to be received from HHS related to costs incurred in the Phase 3 program of intramuscular (i.m.) peramivir for outpatient influenza. The Company initiated this program and voluntarily discontinued it following a decision to pursue higher doses in the ongoing Phase 2 study. Reimbursement of these costs is under discussion with HHS. Further contributing to the decrease in collaborative and other R&D revenues from 2007 to 2008 was the prior year receipt of a $7.0 million milestone payment from Shionogi. This was offset by the recognition of $26.5 million of previously deferred revenue related to the termination of the Company's collaboration with Roche.

R&D expenses were $73.3 million for the year ended December 31, 2008, compared to $94.1 million for the year ended December 31, 2007. The decrease in R&D expenses was due to a reduction in the clinical development costs and toxicology costs associated with the peramivir program and a reduction in manufacturing costs associated with both the peramivir and Forodesine HCl programs. These reductions were offset by an increase in the Company's clinical development costs for Forodesine HCl, the recognition of $8.2 million of previously deferred expense related to the termination of the Company's collaboration with Roche, and increases in personnel related costs, professional fees and operating costs.

G&A expenses were $10.4 million for the year ended December 31, 2008, compared to $9.5 million for the year ended December 31, 2007. The higher expenses were primarily due to increases in professional fees and operating costs.

The net loss for the year ended December 31, 2008, was $24.7 million, or $0.65 per share, compared to a net loss for the year ended December 31, 2007, of $29.1 million, or $0.89 per share.

As of December 31, 2008, the Company held cash, cash equivalents and investments of $63.3 million, which is in-line with the Company's 2008 guidance. BioCryst expects the Company's net cash use in 2009 will be between $30.0 and $38.0 million, dependent on the achievement of certain clinical milestones.

"We made significant headway in our clinical programs in 2008 and have a cash position that will enable us to fund our clinical programs well into 2010," stated Jon Stonehouse, President and Chief Executive Officer of BioCryst. "We were pleased to report positive data, from both our internal and partnered peramivir programs, and look forward to evaluating the data from our ongoing peramivir trials. In 2009, we hope to report top-line data from our Phase 2 trial of peramivir in outpatient influenza and subsequently initiate a Phase 3 program in this indication, and will continue to progress our PNP programs."

Recent Clinical and Corporate Highlights

Peramivir Program

- BioCryst's Phase 2 study of i.m. peramivir in the outpatient setting continues to enroll patients in the Northern Hemisphere. The Company expects to report top-line data from this study in the second quarter of 2009.
- BioCryst's partner, Shionogi, has initiated a Phase 3 study of intravenous (i.v.) peramivir for seasonal influenza in the outpatient setting. Patient enrollment is underway in Japan and other countries in eastern Asia. The study will enroll approximately 1,000 patients. Shionogi initiated this Phase 3 study based on positive clinical results from a Phase 2 study that investigated the efficacy and safety of a single administration of i.v. peramivir 300 mg or 600 mg for the treatment of seasonal influenza in the outpatient setting. The Phase 2 study results were presented at the 48th Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC)/ Infectious Diseases Society of America (IDSA) 46th Annual Meeting in a poster titled "A Double-Blind, Placebo-Controlled Study of Intravenous Peramivir in Acute Influenza Patients." In the Phase 2 study, the primary efficacy endpoint, time to alleviation of symptoms (TTAS), was significantly shorter in both peramivir arms compared to placebo.
- BioCryst will present results from the previously announced exploratory Phase 2 study of i.v. peramivir in patients hospitalized for acute serious or potentially life-threatening influenza in an oral presentation at the XI International Symposium on Respiratory Viral Infections, being held in Bangkok, Thailand, February 19-22, 2009.

Forodesine HCl Program

- BioCryst continues to enroll patients in the Phase 2 pivotal study of Forodesine HCl in patients with cutaneous T-cell lymphoma (CTCL), and has enrolled more than half of the targeted patients. The study will enroll approximately 130 patients and the Company expects to report top-line data in the first half of 2010.
- BioCryst announced interim data from the ongoing Forodesine HCl Phase 2 program in patients with chronic lymphocytic leukemia (CLL) and data from a healthy subject pharmacokinetic (PK) and pharmacodynamic (PD) study. The interim analysis was conducted on data from an exploratory Phase 2 single-arm, open-label program in patients with CLL who failed previous treatment. No partial or complete responses were observed, but five out of 13 patients who were administered 200 mg of Forodesine HCl once-daily had substantial reductions in malignant lymphocytes. Forodesine HCl was generally safe and well-tolerated at the 200 mg once-daily dose. The PK and PD study evaluated the effect of seven days of 200 mg Forodesine HCl dosed either once-daily or twice-daily in healthy volunteers. The study demonstrated substantially increased drug exposure and

PD effect in volunteers administered Forodesine HCl 200 mg twice-daily compared to volunteers administered Forodesine HCl 200 mg once-daily. Based on both the CLL interim analysis and the PK and PD study results, the dosing regimen in the ongoing Phase 2 CLL study was amended to evaluate 200 mg Forodesine HCl twice-daily. The Company expects to provide an update on this study by the end of 2009.

BCX-4208

- A poster entitled, "A Phase 2 Study of the Purine Nucleoside Phosphorylase (PNP) Inhibitor RO5092888 (BCX-4208) in Patients with Moderate to Severe Chronic Plaque Psoriasis: Safety, Tolerability and Lymphocyte Effects" was presented at the 50th American Society of Hematology (ASH) Annual Meeting and Exposition, which was held in San Francisco, December 6-9, 2008. The poster highlighted results from a Phase 2a study that investigated the safety and tolerability of BCX-4208 in patients with moderate to severe chronic plaque psoriasis. Results showed BCX-4208 was safe and well tolerated.
- BioCryst also presented a poster at ASH entitled, "BCX-4208 (RO5092888), a Purine Nucleoside Phosphorylase (PNP) Inhibitor is a Novel, Potent Orally Active Anti T- and B-Cell Agent." Findings presented in this poster support the evaluation of BCX-4208 in the treatment of not only T-cell mediated diseases, but also B-cell mediated diseases.

Corporate Developments

- Stanley C. Erck was appointed to BioCryst's Board of Directors in December 2008. Mr. Erck joined the Company's Board with over 20 years of experience in the biotechnology industry, most recently having served as President and Chief Executive Officer of Iomai Corp. At Iomai, he led the company through an initial public offering, a merger with Intercell, an Austrian vaccine company, and through the development of a late-stage infectious disease product candidate. In addition to BioCryst, Mr. Erck currently serves on the Board of Directors of both MacCyte and MdBio Foundation.

Conference Call and Web Cast

BioCryst's management team will host a conference call and Web cast on Friday, February 6, 2009, at 8:30 a.m. Eastern Time to discuss the financial results and recent corporate developments. To participate in the conference call, please dial 1-800-860-2442 (United States) or 1-412-858-4600 (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 is a biopharmaceutical company that has developed a deep pipeline of novel therapeutics targeting major illnesses by employing crystallography and structure-based drug design. BioCryst is currently advancing investigational new drugs discovered in-house in late-stage clinical trials for influenza and lymphoma. In addition, the Company has a pre-clinical portfolio of novel compounds, directed against infectious, cardiovascular and autoimmune disease targets, to create long-term sustainable value. The Company's strategic alliances with the U.S. Department of Health and Human Services, Shionogi & Co., Ltd., Green Cross Corporation and Mundipharma International Holdings Ltd. validate its scientific foundation and the utility of its product candidates. 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 our belief that subjects in the Phase 2 clinical trial of peramivir received adequate dosing by intramuscular injection for which HHS or the Food & Drug Administration (FDA) may not agree, 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 HCl in cutaneous T-cell lymphoma (CTCL) may not meet its endpoint, that development and commercialization of Forodesine HCl 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 preclinical 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 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, most recent Registration Statement on

Form S-3 (filed November 28, 2008), 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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BIOCRYST PHARMACEUTICALS, INC.
FINANCIAL SUMMARY

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

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2008	2007	2008	2007
Revenues:				
Collaborative and other research and development	$ 34,240	$ 28,172	$ 56,561	$ 71,238
Expenses:				
Research and development	22,060	29,114	73,327	94,052
General and administrative	2,376	2,486	10,399	9,466
Total expenses	24,436	31,600	83,726	103,518
Income (loss) from operations	9,804	(3,428)	(27,165)	(32,280)
Interest and other income	266	1,145	2,433	3,225
Net income (loss)	$ 10,070	$ (2,283)	$ (24,732)	$ (29,055)
Basic and diluted net income (loss) per common share	$ 0.26	$ (0.06)	$ (0.65)	$ (0.89)
Basic weighted average shares outstanding	38,126	37,954	38,062	32,771
Diluted weighted average shares outstanding	38,355	37,954	38,062	32,771

Balance Sheet Data (in thousands)

	December 31, 2008 (Unaudited)	December 31, 2007 (Note 1)
Cash, cash equivalents and securities	$ 63,314	$ 85,008
Receivables from collaborations	11,982	39,128
Total assets	84,692	142,717
Accumulated deficit	(249,268)	(224,536)
Stockholders' equity	46,426	64,905

Note 1: Derived from audited financial statements.