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): May 8, 2008

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 May 8, 2008, the Company issued a news release announcing its financial results for the quarter ended March 31, 2008, 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 8, 2008 entitled "BioCryst Reports First Quarter 2008 Financial Results and Clinical 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: May 8, 2008

BioCryst Pharmaceuticals, Inc.

By: /s/ Michael A. Darwin
Michael A. Darwin
Principal Accounting Officer

EXHIBIT INDEX

Item	Description
99.1	Press release dated May 8, 2008 entitled “BioCryst Reports First Quarter 2008 Financial Results and Clinical Update”.

Exhibit 99.1

BIOCRYST PHARMACEUTICALS, INC.
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205-444-4600 205-444-4640 FAX
www.biocryst.com

Contact: Stuart Grant, Senior Vice President, Chief Financial Officer of BioCryst Pharmaceuticals (205) 444-4600

BioCryst Reports First Quarter 2008 Financial Results and Clinical Update

Birmingham, Alabama — May 8, 2008 — BioCryst Pharmaceuticals, Inc. (NASDAQ: BCRX) today announced financial results for the quarter ended March 31, 2008. The Company reported revenues of $10.8M in the first quarter of 2008, compared to $9.2M in the first quarter of 2007. The net loss for the quarter ended March 31, 2008 was $13.1M, or $0.34 per share, compared to a net loss for the quarter ended March 31, 2007 of $8.8M, or $0.30 per share.

Research and development (R&D) expenses were $21.9M in the first quarter of 2008, compared to R&D expenses of $16.2M in the first quarter of 2007. The increase is primarily attributable to costs associated with the advancement of clinical programs, the costs related to manufacturing 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 2008 were $2.9M compared to G&A expenses of $2.4M for the same quarter in 2007. The higher G&A expenses were primarily due to an increase in professional fees and personnel related costs.

As of March 31, 2008, the Company had cash, cash equivalents and investments of $81.2 million.

“Our financial flexibility and stability will allow us to pursue all of the significant milestones we have set forth for our pipeline candidates,” said Jon P. Stonehouse, Chief Executive Officer of BioCryst. “2008 will be a very active year in the clinic for BioCryst, and we are fortunate to have the financial basis to advance our drug candidates in order to deliver the greatest value to both patients and our shareholders.”

Recent Corporate Highlights

Forodesine HCl cutaneous T-cell lymphoma (CTCL) trial update and chronic lymphocytic leukemia (CLL) trial initiation
The forodesine HCl CTCL pivotal trial is enrolling as planned. This trial has been reviewed under a Special Protocol Assessment (SPA) from the United States Food & Drug Administration (FDA) to support regulatory approval.

BioCryst has also initiated a second clinical trial for patients with CLL based upon data presented at the December 2007 ASH meeting, which demonstrated the potential of forodesine HCl as a treatment for CLL, both as a single agent and in combination with bendamustine. This second CLL trial is a single-arm study evaluating single agent forodesine HCl as a treatment for patients with CLL; response rate is the primary endpoint. The first patient was dosed during the first quarter 2008, and BioCryst will provide a trial update by year end.

Intramuscular (i.m.) peramivir clinical development update

BioCryst initiated a Phase III i.m. peramivir trial early this year and voluntarily discontinued it after 82 of the planned 600 patients had enrolled because of a decision to pursue higher doses in a Phase II setting. Patients with influenza A and B were treated with either placebo or 300mg of i.m. peramivir. Although only 14% of the planned patients were enrolled in the study, results supported the activity of 300mg peramivir. The study was designed to show a difference within the influenza A subgroup, where preliminary clinical data showed a 30 hour reduction in time to alleviation of symptoms in patients that received peramivir compared to those who received placebo. Preliminary results from the overall population showed a reduction in time to alleviation of symptoms of approximately 14 hours. Because the trial was not carried out to completion, the sample size was small; the observed treatment effect was not statistically significant.

These results are consistent with data from previous clinical trials:

- Reductions in time to alleviation of symptoms are consistent with prior Phase II study results of the 300mg dose of i.m. peramivir.
- Reductions in viral shedding and percentage of patients shedding virus were consistent with the data seen in our previous phase II study.
- Pharmacokinetic data in the treated population indicate that patients achieved consistent drug levels, which were similar to those seen in our previous well-controlled Phase I trial.

BioCryst is continuing development of a more concentrated formulation and plans to test higher doses of i.m. peramivir in the next Phase II study. The doses to be studied in Phase II will be selected based on a planned mid 2008 analysis of the ongoing Phase I study of the more concentrated formulation.

“We are encouraged by the signs of activity of i.m. peramivir and are prepared to move forward and evaluate a higher dose. The consistency seen between the results of our recent clinical trials gives us confidence that i.m. peramivir has the potential to be an effective treatment for influenza,” stated Dr. Thomas J. Simon, Interim Chief Medical Officer.

BCX-4208 development update.

Following review of a planned interim analysis of the ongoing Phase IIa trial of BCX-4208 in psoriasis, Roche has terminated its license agreement for the development of BCX-4208 for autoimmune diseases and transplant. As a result, BioCryst will regain worldwide rights to BCX-4208. Roche and BioCryst have agreed to complete the ongoing Phase IIa trial. The planned interim analysis showed that BCX-4208 was safe and well-tolerated; clinical efficacy was not demonstrated.

The ongoing Phase IIa trial is a randomized, double blind, placebo controlled, dose ranging study in 66 patients with moderate to severe plaque psoriasis. BCX-4208 is administered once a day for 6 weeks at a dose of either 20mg or 120mg. The primary objectives of this study are to assess the safety, tolerability, and pharmacokinetic profile of BCX-4208. Secondary objectives include assessment of pharmacodynamic measures and clinical response. The planned interim analysis of the Phase IIa trial included 30 patients divided evenly across the three study arms. The safety analysis includes follow-up on all 30 patients. Of the 30 patients evaluated for efficacy, 18 patients completed all 6 weeks of dosing. The 12 patients who discontinued prior to completing 6 weeks of dosing were equally distributed across the three arms of the study.

In an ongoing Phase I multiple ascending dose study, BCX-4208 showed a dose response effect on reducing lymphocyte counts at doses up to 1040mg administered once daily for 7 days. Interim data from the ongoing Phase IIa study at 20mg and 120mg showed similar dose-dependant effects on reduction of peripheral blood lymphocyte counts. Affected lymphocyte subsets in the Phase II study included CD4+, CD8+, CD56+, and CD20+ cells.

“While Roche’s decision is disappointing, we are very encouraged by the effects on lymphocyte counts that we are seeing with BCX-4208. Similar activity with other experimental and marketed drugs has been associated with clinical efficacy in the treatment of various autoimmune diseases. Together with the good safety and tolerability profile of BCX-4208 observed to date, these data provide a strong scientific rationale for continuing to explore the activity of BCX-4208 in the treatment of autoimmune diseases,” Mr. Stonehouse commented. “We look forward to evaluating the final data from the full cohort of 66 subjects later this year.”

Conference Call and Webcast

The Company will sponsor a conference call at 8:30 a.m. Eastern Time on May 8, 2008 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 1-800-860-2442 (U.S.). 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 forodesine HCl in oncology, BCX-4208 in psoriasis and peramivir in seasonal and life-threatening influenza. BioCryst is collaborating with Mundipharma for the development and commercialization of forodesine HCl in markets across Europe, Asia, Australia and certain neighboring countries. In January 2007, the U.S. Department of Health and Human Services (HHS) awarded a $102.6 million, four-year contract to BioCryst to advance 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 our belief that many subjects in the Phase II clinical trials of peramivir did not receive adequate dosing by intramuscular injection may not be correct, that HHS and the Food & Drug Administration (FDA) may not agree with our analysis, that HHS may further condition, reduce or eliminate future funding of the peramivir program, that the peramivir program may not be successful, that the pivotal trial with forodesine HCl in cutaneous T-cell lymphoma (CTCL) may not meet its endpoint, that the Phase II trial of BCX-4208 for psoriasis may not be successfully completed, 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 projected 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 (File No. 333-145638), 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.

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BIOCRYST PHARMACEUTICALS, INC.
FINANCIAL SUMMARY

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

	Three Months Ended March 31,	
	2008	2007
Revenues:		
Collaborative and other research and development	$ 10,768	$ 9,159
Expenses:		
Research and development	21,898	16,195
General and administrative	2,886	2,372
Total expenses	24,784	18,567
Loss from operations	(14,016)	(9,408)
Interest and other income	918	583
Net loss	$ (13,098)	$ (8,825)
Basic and diluted net loss per common share	$ (0.34)	$ (0.30)
Weighted average shares outstanding	38,059	29,274

Balance Sheet Data (in thousands)

	March 31, 2008 (Unaudited)	December 31, 2007 (Audited)
Cash, cash equivalents and securities	$ 81,166	$ 85,009
Receivables from collaborations	28,579	39,128
Total assets	129,144	142,717
Accumulated deficit	(237,634)	(224,536)
Stockholders' equity	54,223	64,905