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 24, 2011

BioCryst Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

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

4505 Emperor Blvd., Suite 200, Durham, North Carolina 27703 (Address of Principal Executive Offices) (Zip Code)

(Registrant's telephone number, including area code): (919) 859-1302

(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 1.01 Entry into a Material Definitive Agreement

On February 24, 2011, BioCryst Pharmaceuticals, Inc. (the "Company") announced that it had been awarded a \$55.0 million contract modification by the U.S. Department of Health & Human Services ("HHS") intended to fund to completion the Phase 3 development of its neuraminidase inhibitor, intravenous (i.v.) peramivir, for the treatment of patients hospitalized with influenza. This contract modification brings the total award from HHS to \$234.8 million, providing funding through completion of Phase 3 development and the filing of a new drug application for i.v. peramivir in the U.S. It also extends the contract term by 24 months through December 31, 2013.

Item 7.01 Regulation FD Disclosure

On February 24, 2011, the Company issued a news release with respect to the modification. The news release is furnished as Exhibit 99.1 hereto and is incorporated 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

99.1

Exhibit No. Description

Press release dated February 24, 2011 entitled "BioCryst Awarded Additional \$55.0 million by the U.S. Department of Health & Human Services to Complete Peramivir Phase 3 Program"

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: February 24, 2011

INDEX TO EXHIBITS

Exhibit No.

Description Press release dated February 24, 2011 entitled "BioCryst Awarded Additional \$55.0 million by the U.S. Department of Health & Human 99.1 Services to Complete Peramivir Phase 3 Program"



BIOCRYST AWARDED ADDITIONAL \$55.0 MILLION BY THE U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES TO COMPLETE PERAMIVIR PHASE 3 PROGRAM

• BioCryst to host a call to discuss contract modification and updates to the clinical program at 8:30 a.m. Eastern Time Friday, February 25

Research Triangle Park, North Carolina — **February 24, 2011** — BioCryst Pharmaceuticals, Inc. (NASDAQ: BCRX) today announced that it has been awarded a \$55.0 million contract modification by the U.S. Department of Health & Human Services (HHS) intended to fund to completion the Phase 3 development of its neuraminidase inhibitor, intravenous (i.v.) peramivir, for the treatment of patients hospitalized with influenza.

"The shared goal of HHS/BARDA and BioCryst is to achieve approval for peramivir for seriously-ill influenza patients. We value our long-standing relationship with HHS and their continued support," said Jon P. Stonehouse, President and Chief Executive Officer, BioCryst Pharmaceuticals. "This contract modification allows us to significantly increase the number of enrolling sites for our ongoing efficacy study and to drive it to completion. Additionally, the FDA and HHS have agreed to changes in the study that we believe greatly improve the likelihood of demonstrating an improvement over standard of care. Our first priority is to complete the Phase 3 program and we believe these changes should help us reach that goal."

This contract modification brings the total award from HHS to \$234.8 million, providing funding through completion of Phase 3 development and the filing of a new drug application (NDA) for i.v. peramivir in the U.S. It also extends the contract term by 24 months through December 31, 2013. A change of indirect rates for prior years resulting from the contract modification has led to adjustments to BioCryst's financial results for 2010, as explained in detail below. In January 2007, BioCryst was originally awarded a \$102.6 million, four-year contract from HHS to develop peramivir for the treatment of influenza. During 2009, peramivir clinical development for U.S. registration shifted to focus on intravenous delivery and the treatment of hospitalized influenza patients. To support this focus, a September 2009 contract modification was awarded to extend the program by 12 months and to increase funding by \$77.2 million. Through December 31, 2010, \$157.6 million has been recognized as revenue under the contract with HHS to support activities related to the peramivir development program.

Phase 3 Development of Peramivir

To improve the likelihood of a positive clinical outcome, BioCryst has amended the primary efficacy analysis of its multi-center, randomized, double-blind, controlled study to evaluate the efficacy and safety of 600 mg i.v. peramivir administered once-daily for five days in addition to standard of care (SOC), compared to SOC alone, in adults and adolescents who are hospitalized due to serious influenza. Implementation of the following is supported by the HHS contract modification announced today:

- Changing the primary efficacy analysis of the study to focus on a subset of approximately 160 patients not treated with neuraminidase inhibitors as SOC, in order to provide the greatest opportunity to demonstrate a statistically significant peramivir treatment effect
- Increasing the total study target enrollment up to 600 subjects from the current target of 445 subjects
- Adding at least 45 more clinical site locations in additional countries

The actual time to reach completion of enrollment will depend on the prevalence and severity of influenza, as well as the ability of the more than 265 investigator sites to successfully enroll patients. Further details regarding this Phase 3 study is available at: http://clinicaltrials.gov/ct2/show/NCT00958776

Resulting Adjustment to 2010 Financial Results

In connection with the contract modification, HHS and BioCryst agreed to settle on final indirect rates for years 2007, 2008 and 2009. As a result, BioCryst will receive a \$4.9 million cash payment from HHS related to the difference between the actual indirect costs incurred against the contract and the indirect costs that were invoiced at a provisional billing rate during those years. In order to reach agreement regarding the modification, the Company agreed to reductions of approximately \$1.1 million of indirect costs relating to 2008 and 2009. As this subsequent event occurred after BioCryst's release of fourth quarter and full year 2010 financial results but prior to issuance of its annual financial statements to be included in Form 10-K, the Company will adjust the financial results previously reported in its February 10, 2011 press release. Accordingly, collaborative and other research and development revenues for the three and twelve months ended December 31, 2010 will be reduced to \$17.4 million and \$62.1 million, respectively. Net loss and loss per share for the twelve months ended December 31, 2010 will increase to \$10.2 million and \$0.23 per share. Net loss and loss per share for the twelve months ended December 31, 2010 will increase to \$10.2 million and \$0.23 per share. Net loss and loss per share for the twelve months ended December 31, 2010 will increase to \$30.9 million and \$0.76 per share. Receivables from collaborations, total assets, and stockholders' equity as of December 31, 2010 will be reduced to \$30.2 million, \$109.4 million and \$65.5 million, respectively. Accumulated deficit as of December 31, 2010 will increase to \$296.6 million. An adjusted financial table is available at:

http://investor.shareholder.com/biocryst/releases.cfm

Conference Call and Webcast

BioCryst's management team will host a conference call and webcast on Friday, February 25, 2011 at 8:30 a.m. Eastern Time to discuss the contract modification and clinical program changes. 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 webcast can be accessed by logging onto www.biocryst.com. Please connect to the website 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 peramivir

Peramivir is a potent, intravenously administered investigational anti-viral agent that rapidly delivers high plasma concentrations to the sites of infection. Discovered by BioCryst, peramivir inhibits the interactions of influenza neuraminidase, an enzyme which is critical to the spread of influenza within a host. In laboratory tests, peramivir has shown activity against multiple influenza strains, including pandemic H1N1 swine origin flu viral strains. In January 2010, Shionogi & Co., Ltd. launched intravenous (i.v.) peramivir in Japan under the name RAPIACTA® to treat patients with influenza and in August 2010, Green Cross Corporation announced that it had received marketing and manufacturing authorization for i.v. peramivir in Korea to treat patients with influenza A & B viruses, including H1N1 and avian influenza. For more information about peramivir please visit BioCryst's Web site at www.biocryst.com/peramivir.

About BioCryst

BioCryst Pharmaceuticals designs, optimizes and develops novel small-molecule pharmaceuticals that block key enzymes involved in infectious diseases, inflammatory diseases and cancer. BioCryst currently has three novel late-stage compounds in development: peramivir, a neuraminidase inhibitor for the treatment of influenza, BCX4208, a purine nucleoside phosphorylase (PNP) inhibitor for the treatment of gout, and forodesine, an orally-available PNP inhibitor for hematological malignancies. 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 there can be no assurance that our compounds will prove effective in clinical studies; that development and commercialization of our compounds may not be successful; that HHS may further condition, reduce or eliminate future funding of the peramivir program; 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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