BIOCRYST RECEIVES ORPHAN DRUG DESIGNATION FOR BCX-1777

Birmingham, Alabama - February 5, 2004 - BioCryst Pharmaceuticals, Inc. (Nasdaq NM: BCRX) today announced that the U.S. Food and Drug Administration (FDA) granted orphan drug status to BCX-1777, the Company's purine nucleoside phosphorylase (PNP) inhibitor that is in clinical development for treatment of T-cell malignancies. The orphan drug designation is granted for treatment of T-cell non-Hodgkin's lymphoma, which includes cutaneous T-cell lymphoma. BCX-1777, which functions by blocking the T-cell's DNA synthesis machinery, is currently in four Phase I clinical trials at nine leading U.S. cancer centers. BioCryst plans to initiate Phase II clinical trials for BCX-1777 in patients with cutaneous T-cell lymphoma and T-cell leukemia during 2004.

"The FDA's decision to grant BCX-1777 orphan drug designation recognizes the fact that BioCryst is taking a very novel approach to developing a treatment for T-cell cancers," said Charles E. Bugg, Chairman and Chief Executive Officer of BioCryst. "This important milestone marks our company's continuing progress in drug development, and we are pleased and gratified by the Agency's support of our efforts to bring BCX-1777 to cancer patients as quickly as possible."

The orphan drug classification is awarded to select approaches that offer potential therapeutic value in the treatment of rare diseases and conditions. The granting of orphan drug status to BCX-1777 enables BioCryst to receive pre-filing regulatory guidance as well as reduced filing fees, and would provide for market exclusivity in the U.S. for a period of seven years if BCX-1777 receives market approval by the FDA.

BioCryst Pharmaceuticals, Inc. designs, optimizes and develops novel drugs that block key enzymes essential for cancer, cardiovascular and autoimmune diseases, and viral infections. BioCryst integrates the necessary disciplines of biology, crystallography, medicinal chemistry and computer modeling to effectively use structure-based drug design to discover and develop small molecule pharmaceuticals. Enrollment in four Phase I trials for BioCryst's lead product candidate, BCX-1777, is underway at nine U.S. cancer centers for patients with T-cell malignancies, hematologic malignancies, and other refractory cancers. BioCryst has several new enzyme targets in drug discovery including tissue factor/factor VIIa and hepatitis C polymerase. For more information about BioCryst, please visit the company's web site at www.biocryst.com.

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 we may not be able to enroll the required number of subjects in clinical trials of BCX-1777, that BCX-1777 or any of our other product candidates may not receive required regulatory clearances from the FDA, that we may not be able to initiate Phase II clinical trials of BCX-1777 in 2004 or at all, that we may not be able to continue future development of BCX-1777 or any of our other current development programs including tissue factor/factor VIIa and hepatitis C polymerase, that BCX-1777 or our other development programs may never result in future product, license or royalty payments being received by BioCryst, 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, its Form S-3 Registration Statement filed on December 16, 2003 and its Current Report on Form 8-K filed on February 4, 2004, which identify important factors that could cause the actual results to differ materially from those contained in the projections or forward-looking statements.