



## BioCryst Advancing BCX9930, an Oral Factor D Inhibitor for Complement-Mediated Diseases, into Phase 1 Development

March 4, 2019

*—BCX9930 shows high potency, specificity, suppression of hemolysis and wide safety margin in preclinical studies—*

*—Could address multiple complement-mediated diseases of the kidney, blood and nervous system —*

*—Patients currently limited to intravenous (IV) infusion therapy, or no therapy —*

*—Phase 1 data expected in Q4 2019—*

RESEARCH TRIANGLE PARK, N.C., March 04, 2019 (GLOBE NEWSWIRE) -- [BioCryst Pharmaceuticals, Inc.](http://www.biocryst.com) (Nasdaq: BCRX) today announced that the company is advancing BCX9930, an oral Factor D inhibitor discovered and developed by BioCryst, into Phase 1 clinical development in the second quarter of 2019 for the treatment of complement-mediated diseases.

The company plans to initiate a Phase 1 trial to study single and multiple ascending doses of oral BCX9930 in healthy subjects in the second quarter of 2019, and to report the results in the fourth quarter of 2019.

"Based on its outstanding preclinical profile, with high potency, excellent specificity for Factor D, complete suppression of complement-mediated hemolysis after oral dosing, and a wide safety margin, we are excited to advance oral BCX9930 into clinical development," said Dr. William Sheridan, chief medical officer of BioCryst.

"The BioCryst R&D team has established a proven and proprietary expertise to discover and develop first in class or best in class oral medicines for rare diseases. These are difficult targets to design oral medicines for and we have now successfully developed multiple compounds for three rare diseases, hereditary angioedema (HAE), complement-mediated diseases and fibrodysplasia ossificans progressiva (FOP)," said Jon Stonehouse, chief executive officer of BioCryst.

### Preclinical Profile of BCX9930

- In preclinical in-vivo studies of complement activity in the blood, oral dosing of BCX9930 completely suppressed complement-mediated hemolysis.
- In preclinical in-vitro studies of red blood cells from patients with paroxysmal nocturnal hemoglobinuria (PNH), BCX9930 completely suppressed complement-mediated hemolysis, and completely blocked deposition of complement enzyme C3 fragments on PNH red blood cells.
- In preclinical in-vitro studies, BCX9930 demonstrated significant activity at low drug concentrations in several well-established complement activity assays.
- In preclinical in-vitro assays, BCX9930 was more potent on Factor D by approximately 200-fold to more than 3000-fold compared with other serine protease enzymes outside the complement pathway.
- In preclinical oral dosing studies, drug exposure increased in proportion to dose, and high drug levels were achieved.
- In preclinical in-vivo safety pharmacology and toxicology studies, drug concentrations at the no observed adverse event level (NOAEL) doses of BCX9930 were more than 500-fold greater than the estimated therapeutic target level.

"Existing IV infusion therapy for complement-mediated diseases currently generates more than \$3 billion in annual global sales with approvals in just a few of the many potential disease areas. With full global rights to a BioCryst-invented oral Factor D inhibitor, and relatively quick proof of concept, we look forward to advancing BCX9930 to address multiple complement-mediated diseases," Stonehouse added.

### About Complement-Mediated Diseases

The complement system is part of the body's natural immune system and is responsible for helping the body eliminate microbes (including viral and bacterial infections) and damaged cells. It is comprised of proteins which are primarily produced in the liver and circulate in the blood. Once activated, the complement system stimulates inflammation, phagocytosis and cell lysis.

Excessive or uncontrolled activation of the complement system can cause severe, and potentially fatal, immune and inflammatory disorders.

The complement system comprises biological cascades of amplifying enzyme cleavages involving more than 30 proteins and protein fragments, and may be activated through three pathways: the classical pathway (initiated by antibody-antigen complexes), the lectin pathway (initiated by lectin

binding) and the alternative pathway (initiated by microbial surfaces).

The alternative pathway also provides a critical amplification loop for all three pathways, regardless of the initiating mechanism. Factor D is an essential enzyme in the alternative pathway, thus making Factor D an attractive target to address complement-mediated diseases.

#### **About BCX9930**

Discovered by BioCryst, BCX9930 is a novel, oral, potent and selective small molecule inhibitor of Factor D currently advancing into Phase 1 clinical development for the treatment of complement-mediated diseases. Patients with complement-mediated diseases, many of which can cause death or severe morbidity, currently either have no treatments available, or are limited to repeated intravenous infusion treatments. The company plans to initiate a Phase 1 clinical trial of oral BCX9930 in the second quarter of 2019 and to report the results in the fourth quarter of 2019.

#### **About BioCryst Pharmaceuticals**

BioCryst Pharmaceuticals discovers novel, oral small-molecule medicines that treat rare diseases in which significant unmet medical needs exist and an enzyme plays a key role in the biological pathway of the disease. BioCryst has several ongoing development programs including BCX7353, an oral treatment for hereditary angioedema, BCX9930, an oral Factor D inhibitor for the treatment of complement-mediated diseases, galidesivir, a potential treatment for Marburg virus disease and Yellow Fever, and a preclinical program to develop oral ALK-2 inhibitors for the treatment of fibrodysplasia ossificans progressiva. RAPIVAB<sup>®</sup> (peramivir injection), a viral neuraminidase inhibitor for the treatment of influenza, is BioCryst's first approved product and has received regulatory approval in the U.S., Canada, Australia, Japan, Taiwan, Korea and the European Union. Post-marketing commitments for RAPIVAB are ongoing. For more information, please visit the Company's website at [www.BioCryst.com](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 BioCryst's 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 are 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 developing BCX9930 may take longer or may be more expensive than planned; that ongoing and future preclinical and clinical development of BCX9930 may not advance as expected, enroll the required number of subjects or have positive results; that the FDA, EMA or other applicable regulatory agency may require additional studies beyond the studies planned, may not provide regulatory clearances, may impose a clinical hold or may withhold market approval with respect to BCX9930. 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 BioCryst's projections and forward-looking statements.

BCRXW

#### **Contact:**

John Bluth

+1 919 859 7910

[jbluth@biocryst.com](mailto:jbluth@biocryst.com)