Krystal Biotech Announces First Patient Dosed in Phase 1 Clinical Trial of Inhaled KB707 for the Treatment of Locally Advanced or Metastatic Solid Tumors of the Lung

April 22, 2024

• Received Fast Track Designations for both inhaled and intratumoral KB707

PITTSBURGH, April 22, 2024 (GLOBE NEWSWIRE) -- Krystal Biotech, Inc. (the "Company") (NASDAQ: KRYS), a commercial-stage biotechnology company, announced today that the first patient was dosed in its Phase 1 clinical trial (KYANITE-1) evaluating inhaled KB707, a modified HSV-1 vector designed to deliver genes encoding both human interleukin-12 (IL-12) and interleukin-2 (IL-2) to the lung, for the treatment of patients with locally advanced or metastatic solid tumors of the lung.

"Cytokine therapy holds significant potential for the treatment of solid tumors but its utility has been limited by a lack of safe and effective delivery options," said David Chien, M.D., Senior Vice President of Clinical Development at Krystal Biotech. "Cytokine delivery via inhalation is a first-of-its-kind therapeutic approach made possible by the unique attributes of Krystal's HSV-1-based vector platform. Together with intratumoral KB707, inhaled KB707 has the potential to significantly expand the clinical utility of cytokine therapy to treat a wide range of otherwise difficult-to-treat and standard of care refractory solid tumors. Dosing the first patient in KYANITE-1 is an exciting step toward our goal of delivering a new class of cancer immunotherapies."

The KYANITE-1 clinical trial is an open-label, multicenter, dose escalation and expansion study to evaluate inhaled KB707 monotherapy in patients with advanced solid tumor malignancies affecting the lungs. Details of the KYANITE-1 study can be found at www.clinicaltrials.gov under NCT identifier: NCT06228326.

"Dosing the first patient in our inhaled KB707 trial is another important milestone for our oncology program and for Krystal," said Suma Krishnan, President, Research & Development, Krystal Biotech. "KYANITE-1 is our second active clinical trial evaluating KB707 and along with KB407 and KB408, our inhaled genetic medicine candidates for the treatment of cystic fibrosis and alpha-1 antitrypsin deficiency, respectively, KB707 is our third clinical stage drug candidate delivered via inhalation. With a deep pipeline of active clinical trials, we are looking forward to data readouts starting later in 2024, which we expect will showcase the breadth and potential of our proprietary, HSV-1 based gene delivery platform."

In February 2024, the U.S. Food and Drug Administration (FDA) granted Fast Track Designation for inhaled KB707 for the treatment of patients with solid tumors with pulmonary metastases that are relapsed or refractory to standard of care therapy. This is the second Fast Track Designation for the KB707 program. In July 2023, the FDA granted intratumoral KB707 Fast Track Designation for the treatment of anti-PD-1 relapsed/refractory locally advanced or metastatic melanoma.

About Fast Track Designation
Fast Track Designation is designed to facilitate the development and expedite the review of drugs to treat serious conditions and treat a serious or unmet medical need, enabling drugs to reach patients sooner. Clinical programs with Fast Track Designation may benefit from early and frequent communication with the FDA throughout the regulatory review process, and such clinical programs may be eligible to apply for Accelerated Approval and Priority Review if relevant criteria are met.

About IL-2, IL-12, and KB707
IL-2 and IL-12 are secreted cytokines with complementary functions promoting cell-mediated immunity in humans. Both IL-2 and IL-12 have been shown to elicit anti-tumor immune responses in preclinical models and in clinical settings and have been extensively studied for their potential in cancer immunotherapy. Despite promising signs of efficacy, it has proven difficult to effectively harness IL-2 and IL-12 for therapeutic benefit, as systemic administration is often poorly tolerated, and their inherently short half-lives necessitate high dose levels and extremely frequent dose intervals. KB707 is a modified HSV-1 vector designed to deliver genes encoding both human IL-12 and IL-2 directly to a patient's tumor(s) and promote systemic immune-mediated tumor clearance. KB707 targets solid tumors that are accessible via intratumoral injection or inhalation.

About Krystal Biotech, Inc.
Krystal Biotech, Inc. (NASDAQ: KRYS) is a commercial-stage biotechnology company focused on the discovery, development and commercialization of genetic medicines to treat diseases with high unmet medical needs. VYJUVEK® is the Company's first commercial product, the first-ever redosable gene therapy, and the first medicine approved by the FDA for the treatment of dystrophic epidermolysis bullosa. The Company is rapidly advancing a robust preclinical and clinical pipeline of investigational genetic medicines in respiratory, oncology, dermatology, ophthalmology, and aesthetics. Krystal Biotech is headquartered in Pittsburgh, Pennsylvania. For more information, please visit http://www.krystalbio.com, and follow @KrystalBiotech on LinkedIn and X (formerly Twitter).

Forward-Looking Statements
Any statements in this press release about future expectations, plans and prospects for Krystal Biotech, Inc., including statements about the clinical utility of KB707 and its potential therapeutic capabilities, the Company's expectations regarding the timing and results of data readouts from the Company's clinical trials, the Company's beliefs about its proprietary, HSV-1 based gene delivery platform, and other statements containing the words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "likely," "will," "would," "could," "should," "continue," and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: uncertainties associated with regulatory review of clinical trials and applications for marketing approvals, the availability or commercial potential of product candidates, including KB707, and such other important factors as are set forth under the caption "Risk Factors" in the Company's annual and quarterly reports on file with the U.S. Securities and Exchange Commission. In addition, the forward-looking statements included in this press release represent the Company's views as of the date of this press release. The Company anticipates that subsequent events and developments will cause its views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, it specifically

disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of this press release.

CONTACT
Investors and Media:
Stéphane Paquette, PhD
Krystal Biotech
spaquette@krystalbio.com

Source: Krystal Biotech, Inc.