Krystal Biotech Submits Biologics License Application to U.S. FDA Seeking Approval of B-VEC for the Treatment of Patients with Dystrophic Epidermolysis Bullosa

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PITTSBURGH, June 22, 2022 (GLOBE NEWSWIRE) -- Krystal Biotech, Inc. (the "Company") (NASDAQ: KRYS), the leader in redosable gene therapy, announced today the submission of a Biologics License Application (BLA) to the U.S. Food and Drug Administration (FDA) seeking approval of B-VEC (beremagene geperpavec) for the treatment of patients with dystrophic epidermolysis bullosa (DEB). B-VEC is an investigational non-invasive, topical gene therapy designed to treat DEB at the molecular level by providing the patient's skin cells with two copies of the *COL7A1* gene to make functional COL7 protein, thereby addressing the fundamental disease-causing mechanism.

"The unmet medical need for DEB patients remains very high and our relentless pursuit of a treatment for this disease continues with the same sense of urgency that we have always had since the founding of Krystal Biotech," said Suma Krishnan, President of Research & Development. "We look forward to working with the FDA in its review of our BLA submission."

The BLA submission for B-VEC is supported by data from two placebo controlled clinical trials - the GEM-3 trial (NCT04491604) and the GEM-1/2 trial (NCT03536143).

The GEM-3 trial was a randomized, double-blind, intra-patient placebo-controlled multi-center trial designed to evaluate the efficacy and safety of B-VEC for the treatment of DEB. In the trial, matched wounds receiving topical B-VEC or placebo were evaluated in 31 DEB patients over 26 weeks. The pivotal GEM-3 trial met its primary endpoint of complete wound healing at six-months and its secondary endpoint of complete wound healing at three-months. B-VEC was well tolerated, with no drug-related serious adverse events or discontinuations due to treatment.

The GEM-1/2 trial was a randomized, open-label, intra-patient placebo-controlled single-center trial designed to evaluate efficacy (mechanistic and clinical) and safety of B-VEC for the treatment of DEB. In the trial, matched wounds receiving topical B-VEC or placebo were evaluated in nine recessive dystrophic epidermolysis bullosa patients over 12 weeks. Both mechanistic and clinical endpoints were met. No serious or severe B-VEC-related adverse events or systemic drug exposure were noted. Results from the GEM-1/2 trial of B-VEC for the treatment of DEB were published in *Nature Medicine*. The publication provides a comprehensive analysis of the data from the GEM-1/2 trial showing that repeat topical applications of B-VEC were well tolerated and associated with durable wound closure, full-length cutaneous type VII collagen (COL7) expression, and anchoring fibril assembly with minimal reported adverse events.

In addition to submitting the BLA to the FDA, the Company has continued to engage in dialog with regulatory authorities in other markets, including Europe and Japan. The Company anticipates submission of a marketing authorization application with the European Medical Agency (EMA) in 2H 2022.

About Dystrophic Epidermolysis Bullosa (DEB)

DEB is a rare and severe disease that affects the skin and mucosal tissues. It is caused by one or more mutations in a gene called *COL7A1*, which is responsible for the production of the protein type VII collagen (COL7) that forms anchoring fibrils that bind the dermis (inner layer of the skin) to the epidermis (outer layer of the skin). The lack of functional anchoring fibrils in DEB patients leads to extremely fragile skin that blisters and tears from minor friction or trauma. DEB patients suffer from open wounds, which leads to skin infections, fibrosis which can cause fusion of fingers and toes, and ultimately an increased risk of developing an aggressive form of squamous cell carcinoma which, in severe cases, can be fatal.

About B-VEC

B-VEC is an investigational non-invasive, topical, redosable gene therapy designed to deliver two copies of the *COL7A1* gene when applied directly to DEB wounds. B-VEC was designed to treat DEB at the molecular level by providing the patient's skin cells the template to make functional COL7 protein, thereby addressing the fundamental disease-causing mechanism.

The FDA and EMA have each granted B-VEC orphan drug designation for the treatment of DEB, and the FDA has granted B-VEC fast track designation and rare pediatric designation for the treatment of DEB. In addition, the FDA granted Regenerative Medicine Advanced Therapy (RMAT) to B-VEC for the treatment of DEB and the EMA granted PRIority MEdicines (PRIME) eligibility for B-VEC to treat DEB.

About Krystal Biotech, Inc.

Krystal Biotech, Inc. (NASDAQ: KRYS) is a pivotal-stage gene therapy company leveraging its proprietary, redosable gene therapy platform and in-house manufacturing capabilities to develop life-changing medicines for patients with serious diseases, including rare diseases in skin, lung, and other areas. For more information please visit http://www.krystalbio.com, and follow @KrystalBiotech on LinkedIn and Twitter.

Forward-Looking Statements

Any statements in this press release about future expectations, plans and prospects for the Company, including statements about the timing of the submission of the Company's EMA marketing authorization application, 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 B-VEC, the sufficiency of cash resources and need for additional financing 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 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.

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