CRISPR Therapeutics Presents Preclinical Data at AACR 2021 Supporting CD70 Knockout as a Novel Approach to Increasing CAR-T Cell Function

ZUG, Switzerland and CAMBRIDGE, Mass. – April 10, 2021 -- (GLOBE NEWSWIRE) -- CRISPR Therapeutics (Nasdaq: CRSP), a biopharmaceutical company focused on creating transformative gene-based medicines for serious diseases, today announced preclinical data from the Company's allogeneic chimeric antigen receptor T cell (CAR-T) program at the American Association for Cancer Research (AACR) Annual Meeting 2021. The data, presented today in an e-poster session entitled, *CD70 knockout: A novel approach to augment CAR-T cell function*, found that the generation of CAR-T cells including knockout of the CD70 show improved properties including potency and persistence over CAR T cells where the CD70 gene remains intact.

The Company applied CRISPR/Cas9 editing to examine the effects of knocking out the gene function of multiple checkpoint-related genes in CAR-T cells, including PD1 and LAG3 where antagonism with antibodies has shown anti-cancer properties in humans and mice, as well CD70. The data demonstrated that CD70 knockout performed better than other checkpoint genes and provided advantages for CAR-T cells targeting multiple antigens beyond CD70. In contrast, CAR-T cells with classical checkpoint genes knocked out showed no improved properties and often proved detrimental to CAR-T function.

CRISPR Therapeutics is currently studying CTX130™, an investigational allogeneic CAR-T cell therapy, in patients with CD70-expressing tumors, including clear cell renal cell carcinoma and B and T cell malignancies. CRISPR Therapeutics' two independent Phase 1, single-arm, multi-center, open-label clinical trials that are designed to assess the safety and efficacy of several dose levels of CTX130 are ongoing. The Company expects to report top-line data from these trials in 2021.

About CRISPR Therapeutics

CRISPR Therapeutics is a leading gene editing company focused on developing transformative gene-based medicines for serious diseases using its proprietary CRISPR/Cas9 platform. CRISPR/Cas9 is a revolutionary gene editing technology that allows for precise, directed changes to genomic DNA. CRISPR Therapeutics has established a portfolio of therapeutic programs across a broad range of disease areas including hemoglobinopathies, oncology, regenerative medicine and rare diseases. To accelerate and expand its efforts, CRISPR Therapeutics has established strategic collaborations with leading companies including Bayer, Vertex Pharmaceuticals and ViaCyte, Inc. CRISPR Therapeutics AG is headquartered in Zug, Switzerland, with its wholly-owned U.S. subsidiary, CRISPR Therapeutics, Inc., and R&D operations based in Cambridge, Massachusetts, and business offices in San Francisco, California and London, United Kingdom. For more information, please visit www.crisprtx.com.

CRISPR Therapeutics Forward-Looking Statement

This press release may contain a number of "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, as well as statements regarding CRISPR Therapeutics' expectations about any or all of the following: (i) the status of preclinical studies and clinical trials (including, without limitation, expectations regarding the data that is being presented and the expected timing of data releases); (ii) the safety, efficacy and clinical progress of CRISPR Therapeutics' various clinical programs, including CTX130; (iii) the data that will be generated by ongoing clinical trials, and the ability to use that data for the design and initiation of further clinical trials; and (iv) the therapeutic value, development, and commercial potential of CRISPR/Cas9 gene editing technologies and therapies. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects" and similar expressions are intended to identify forward-looking statements. You are cautioned that forward-looking statements are inherently uncertain. Although CRISPR Therapeutics believes that such statements are based on reasonable assumptions within the bounds of its knowledge of its business and operations, forward-looking statements are neither promises nor guarantees and they are necessarily subject to a high degree of uncertainty and risk. Actual performance and results may differ materially from those projected or suggested in the forward-looking statements due to various risks and uncertainties. These risks and uncertainties include, among others: uncertainties inherent in the conduct of preclinical studies for CRISPR Therapeutics' product candidates (including, without limitation, availability and timing of results and whether such results will be predictive of future results of the future preclinical studies or clinical trials); the potential for initial data from any clinical trial and initial data from a limited number of patients not to be indicative of final or future trial results; the potential that CTX130 clinical trial results may not be favorable or may not support registration or further development; the potential that future competitive or other market factors may adversely affect the commercial potential for CRISPR Therapeutics' product candidates; the potential impacts due to the coronavirus pandemic such as the timing and progress of clinical trials, preclinical studies and other research and development activities; uncertainties regarding the intellectual property protection for CRISPR Therapeutics' technology and intellectual property belonging to third parties; and those risks and uncertainties described under the heading "Risk Factors" in CRISPR Therapeutics' most recent annual report on Form 10-K and in any other subsequent filings made by CRISPR Therapeutics with the U.S. Securities and Exchange Commission, which are available on the SEC's website at www.sec.gov. CRISPR Therapeutics disclaims any obligation or undertaking to update or revise any forward-looking statements contained in this press release, other than to the extent required by law.

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