CRISPR Therapeutics Presents Data at the Society for Immunotherapy of Cancer (SITC) 37th Annual Meeting

ZUG, Switzerland and BOSTON, Mass. – November 10, 2022 -- CRISPR Therapeutics (Nasdaq: CRSP), a biopharmaceutical company focused on creating transformative gene-based medicines for serious diseases, today presented data for CTX130™ for the treatment of relapsed or refractory renal cell carcinoma (RCC) as an oral presentation delivered by City of Hope's Sumanta Pal, M.D. Additionally, together with collaborators at the Moffitt Cancer Center, the Company presented preclinical data in a poster presentation demonstrating the potential of potency-enhanced anti-CD83 CAR-T cells in preventing relapse in acute myeloid leukemia (AML).

"We are very pleased by the encouraging data from our first-in-human clinical trial exploring CD70-targeting CAR-T cell therapy in clear cell RCC. In this trial, treatment with CTX130 resulted in a durable complete response, and the trial demonstrated a favorable disease control rate overall. We remain excited by the results presented today for the CTX130 trial for the treatment of relapsed or refractory RCC," said Phuong Khanh (P.K.) Morrow, M.D., FACP, Chief Medical Officer of CRISPR Therapeutics. "Additionally, we presented a poster highlighting preclinical data that demonstrates that CRISPR-edited allogenic anti-CD83 CAR-T cells show potent activity in models of AML and can be a promising CAR-T target for the treatment of AML."

"At present, a treatment that offers patients with advanced kidney cancer the possibility of a durable remission with limited toxicity remains elusive. Our data shared today show encouraging activity for an allogeneic CAR-T therapy in this setting and highlights the potential of this modality for these patients," added Sumanta Pal, M.D., Professor, Department of Medical Oncology and Therapeutics Research, Co-director, Kidney Cancer Program, and medical oncologist at City of Hope, one of the largest cancer research and treatment organizations in the United States.

Key details and takeaways from the oral presentation and poster include:

Title: CTX130 allogeneic CRISPR-Cas9–engineered chimeric antigen receptor (CAR) T cells in patients with advanced clear cell renal cell carcinoma: Results from the Phase 1 COBALT-RCC study
Abstract Number and Type: 558, oral presentation
Session Number: 113, Cellular Therapies + Bispecifics
Date and Time: Thursday, November 10, 2022, 5:37 PM ET

- This first-in-human clinical trial exploring CD70-targeting CAR-T cell therapy in clear cell RCC (ccRCC) showed a tolerable safety profile with no off-target toxicities and encouraging antitumor activity.
- One patient experienced a durable complete response, the first to be achieved with allogeneic CAR-T cell therapy in patients with relapsed/refractory solid tumors.
- CTX130 achieved a 77% disease control rate in a heavily pretreated RCC patient population. The longest duration of stable disease achieved was observed for 7.8 months and ongoing at the time of data cutoff. During periods of stable disease, patients did not receive any other anticancer therapies.

- The results from the COBALT-RCC study represent a clinically meaningful proof-of-concept for further exploration of CD70-targeting CAR-T cells in ccRCC and other CD70+ malignancies.
- A next generation anti-CD70 CAR-T program (CTX131™) is being developed, which incorporates the edits in CTX130 with additional edits to the Regnase-1 and TGFBR2 genes. These additional edits have been shown to significantly increase potency of the CAR-T cells in preclinical models.

Title: CRISPR/Cas9 gene-edited, allogeneic anti-CD83 CAR-T cells demonstrate potent activity in GvHD and AML tumor models
Abstract Number and Type: 367, poster
Date and Time: Thursday, November 10, 2022, 9:00 AM - 9:00 PM ET

- CD83 is a promising CAR-T target for the treatment of AML.
- While anti-CD83 CAR-T cells show encouraging activity alone, that activity can be improved through a variety of means, including knock out of CD83 to prevent CAR-mediated fratricide, knock out of B2M to reduce allogeneic rejection, and combination with belatacept.
- CRISPR/Cas9-mediated disruption of Regnase-1 and TGFBR2 expression further improves potency and survival in AML models *in vivo*.

The presentations are available for viewing at http://ir.crisprtx.com/presentations.

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 partnerships 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 in Boston, Massachusetts and San Francisco, California, and business offices in 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, including statements made by Dr. Morrow and Dr. Pal in this press release, as well as statements regarding CRISPR Therapeutics' expectations about any or all of the following: (i) the safety, efficacy and clinical progress of CRISPR Therapeutics' various clinical and preclinical programs; (ii) the status of clinical trials and preclinical studies (including, without limitation, expectations regarding the oral presentation and poster, the data that is being presented, and the expected timing of data releases); and (iii) 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: the potential for initial and preliminary 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 clinical trial results may not be favorable or may not support registration or further development; that one or more of its clinical and preclinical programs will not proceed as planned for technical, scientific or commercial reasons; the potential that future competitive or other market factors may adversely affect the commercial potential for CRISPR Therapeutics' product candidates; uncertainties inherent in the initiation and completion of preclinical studies for its product candidates and whether results from such studies will be predictive of future results of future studies or clinical trials; the potential impacts due to the coronavirus pandemic such as the timing and progress of clinical trials; 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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