CRISPR Therapeutics Receives Grant to Advance *In Vivo* CRISPR/Cas9 Gene Editing Therapies for HIV

-Funding from the Bill & Melinda Gates Foundation will support research to enable CRISPR/Cas9-based therapies for HIV that can benefit patients worldwide-

ZUG, Switzerland and CAMBRIDGE, Mass., December 14, 2020 -- CRISPR Therapeutics (Nasdaq: CRSP), a biopharmaceutical company focused on creating transformative gene-based medicines for serious diseases, today announced the receipt of a grant from the Bill & Melinda Gates Foundation to research *in vivo* gene editing therapies for the treatment of HIV.

"While we have demonstrated the promise of CRISPR/Cas9 gene editing *ex vivo* in sickle cell disease and beta thalassemia, an *in vivo* approach to editing hematopoietic stem cells could allow the transformative benefit of CRISPR/Cas9 to reach a broader array of patients, including those in low resource settings that lack sufficient infrastructure for stem cell transplantation," said Tony Ho, M.D., Executive Vice President and Head of Research & Development at CRISPR Therapeutics. "We look forward to working on new therapies that could contribute to the global effort to reduce the burden of HIV."

The grant builds upon CRISPR Therapeutics' proprietary CRISPR/Cas9 gene editing technology and expertise in editing hematopoietic stem cells and contributes to efforts to accelerate transformative medicines for global health.

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 based in Cambridge, Massachusetts, and business offices in San Francisco, California and London, United Kingdom. For more information, please visit www.crisprtx.com.

CRISPR 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. Ho in this press release, as well as regarding CRISPR Therapeutics' expectations about any or all of the following: (i) the expected benefits of CRISPR Therapeutics' research funded by the Bill & Melinda Gates Foundation and (ii) 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 initiation and completion of preclinical studies for CRISPR Therapeutics' product candidates; availability and timing of results from preclinical studies; whether results from a preclinical trial will be favorable and predictive of future results of the future trials; uncertainties about regulatory approvals to conduct trials or to market products; that future competitive or other market factors may adversely affect the commercial potential for CRISPR Therapeutics' product candidates; potential impacts due to the coronavirus pandemic, such as the timing and progress of preclinical studies; uncertainties regarding the intellectual property protection for CRISPR Therapeutics' technology and intellectual property belonging to third parties, and the outcome of proceedings (such as an interference, an opposition or a similar proceeding) involving all or any portion of such intellectual property; and those risks and uncertainties described under the heading "Risk Factors" in CRISPR Therapeutics' most recent annual report on Form 10-K, quarterly report on Form 10-Q, 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. Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date they are made. 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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