CRISPR Therapeutics and Casebia Collaborate with CureVac on mRNA for Gene-Editing Programs

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CureVac's mRNA technology accessed to express Cas9 for in vivo liver-targeted therapies

ZUG, Switzerland and CAMBRIDGE, Mass. and TÜBINGEN, Germany, and BOSTON, Nov. 13, 2017 (GLOBE NEWSWIRE) -- CRISPR Therapeutics (NASDAQ:CRSP), a genome editing company focused on creating transformative gene-based medicines for serious diseases, Casebia Therapeutics, a joint-venture established by CRISPR Therapeutics and Bayer AG for developing CRISPR-based therapeutics in select disease areas, and CureVac AG, a biopharmaceutical company pioneering mRNA-based drugs, today announced they have signed a collaboration agreement.

Under the terms of the agreement, CureVac will develop novel Cas9 mRNA constructs with improved properties for gene editing applications, such as increased potency, decreased duration of expression, and reduced potential for immunogenicity. CRISPR Therapeutics and Casebia have obtained an exclusive license to the improved constructs for use in three of their *in vivo* gene-editing programs in liver diseases. CureVac will also provide mRNA manufacturing through clinical development and commercialization of the three programs. In exchange, CureVac will receive an upfront payment and research funding, and will be eligible to receive development and commercial milestones and royalties on commercialized products arising from the collaboration.

"This collaboration with CRISPR Therapeutics demonstrates the breadth of CureVac's RNArt® technology and its potential in the field of genome editing," stated Dan Menichella, CBO of CureVac AG and CEO of CureVac Inc. "With this collaboration we have the opportunity to combine CRISPR's cutting-edge genome editing technology with CureVac's mRNA expertise to potentially deliver transformative therapies to patients."

Samarth Kulkarni, Ph.D., President and CBO of CRISPR Therapeutics commented, "Enabling *in vivo* CRISPR-based therapies is a strategic priority for CRISPR. Together with Casebia, we are continuing to make deliberate investments to access the highest quality technologies for *in vivo* delivery. CureVac is an industry-leader in mRNA development and manufacturing, and we are excited to have the opportunity to partner with them."

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 gene-editing platform. CRISPR/Cas9 is a revolutionary technology that allows for precise, directed changes to genomic DNA. The company's multi-disciplinary team of world-class researchers and drug developers is working to translate this technology into breakthrough human therapeutics in a number of serious diseases. Additionally, CRISPR Therapeutics has established strategic collaborations with Bayer AG and Vertex Pharmaceuticals to develop CRISPR-based therapeutics in diseases with high unmet need. The foundational CRISPR/Cas9 patent estate for human therapeutic use was licensed from the company's scientific founder Emmanuelle Charpentier, Ph.D. 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. For more information, please visit http://www.crisprtx.com.

About Casebia Therapeutics
Casebia Therapeutics is a joint venture between Bayer and CRISPR Therapeutics, focused on discovering, developing and commercializing CRISPR/Cas9 gene-editing therapeutics to treat the genetic causes of bleeding disorders, autoimmune disease, blindness, hearing loss and heart disease. Formed in March 2016, Casebia has access to gene-editing technology from CRISPR Therapeutics in specific disease areas, as well as access to protein engineering expertise and relevant disease know-how through Bayer. Casebia is a free-standing entity, equally owned by Bayer and CRISPR Therapeutics, with its own scientific leadership and management team. The company's Board of Directors has equal composition from Bayer and CRISPR Therapeutics. Casebia's primary base of research operations is in Cambridge, MA, with a second site in San Francisco, CA. For more information, please visit www.casebia.com.

About CureVac
Founded in Germany in the year 2000, CureVac is a leading company in the field of messenger RNA (mRNA) technology with more than 17 years expertise in handling, optimizing and manufacturing this versatile molecule for medical purposes. The principle of CureVac's proprietary technology is the use of mRNA as a data carrier to instruct the human body to produce its own proteins capable of fighting a wide range of diseases. The company applies its technologies for the development of cancer therapies, prophylactic vaccines and molecular therapies. The company employs a workforce of around 340 *RNA people* at locations in Germany and Boston, Mass. To date, CureVac has received approximately $420 million (€400 million) in equity investments including significant investments from SAP founder Dietmar Hopp's dievini and an investment of $52 million from the Bill & Melinda Gates Foundation. CureVac has also entered into collaborations with multinational corporations and organizations, including Boehringer Ingelheim, Eli Lilly, Sanofi Pasteur and the Bill & Melinda Gates Foundation. In 2006, CureVac successfully established the worldwide first GMP facility for the manufacturing of mRNA. In 2017 CureVac started the establishment and construction of industrial scale production facilities. To learn more about CureVac, please visit us at http://www.curevac.com.

CRISPR Forward-Looking Statement

Certain statements set forth in this press release constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, but not limited to, statements concerning: the timing of filing of clinical trial applications and INDs and timing of commencement of clinical trials, the intellectual property coverage and positions of the Company, its licensors and third parties, the sufficiency of the Company's cash resources and the therapeutic value, development, and commercial potential of CRISPR/Cas-9 gene editing technologies and therapies. You are cautioned that forward-looking statements are inherently uncertain. Although the Company believes that such statements are based on reasonable assumptions within the bounds of its knowledge of its business and operations, the 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 regarding the intellectual property protection for our technology and intellectual property belonging to third parties; uncertainties inherent in the initiation and completion of preclinical studies for the Company's product candidates; availability and timing of results from preclinical studies; whether results from a preclinical trial will be predictive of future results of the future trials; expectations for regulatory approvals to conduct trials or to market products; and those risks and uncertainties described under the heading "Risk Factors" in the Company's most recent annual report on Form 10-K, and in any other subsequent filings made by the Company with the U.S. Securities and Exchange Commission (SEC), 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.

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