Editas Medicine Presents Pre-Clinical Data Supporting the use of CRISPR-Cas12a to Edit Induced Pluripotent Stem Cells for the Development of Engineered Cell Immunotherapies

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CAMBRIDGE, Mass., May 15, 2020 (GLOBE NEWSWIRE) -- Editas Medicine, Inc. (Nasdaq: EDIT), a leading genome editing company, today announced results from a pre-clinical study evaluating multi-gene knockout and transgene knock-in using its proprietary engineered CRISPR-Cas12a (EngCas12a) in induced pluripotent stem cells (iPSCs) for the development of engineered cell immunotherapy medicines. The results of this study further reinforce Editas Medicine's belief in the transformative potential of iPSC-derived natural killer (iNK) cells as off-the-shelf engineered cell medicines for the treatment of solid tumor cancers. The Company reported these data today in an oral presentation at the 23rd Annual Meeting of the American Society of Gene & Cell Therapy (ASGCT) being held virtually.

Induced pluripotent stem cells (iPSCs) offer a renewable source of highly characterized cells that can be differentiated into an array of immune effector cells, including, but not limited to, iPSC-derived natural killer cells (iNKs). Edited iPSC clones can then be screened and selected to contain only the desired edits, ensuring a pure and edited final population of iNKs. Allogenic NK cells are an effective cancer cell therapy without evidence of graft versus host disease.

In this study, CRISPR-Cas12a was used to make highly edited iPSC clones. The iPSCs were then differentiated into functional iNK cells. The iNKs derived from the edited iPSC clones had enhanced tumor killing activity relative to iNKs from unedited iPSCs, demonstrating the utility of an edited iPSC platform. This data supports the continued development of off-the-shelf engineered cell medicines for people with solid tumor cancers.

"We have made significant progress in our engineered cell medicine program for the treatment of oncologic diseases, and this data further supports our belief that using CRISPR technology to make differentiated medicines can make a meaningful impact in the treatment of cancer," said Charles Albright, Ph.D., Executive Vice President and Chief Scientific Officer, Editas Medicine. "We are focused on solid tumors given the high unmet need and will pursue multiple cell types to create a portfolio of innovative medicines. We believe using innate immune cells, specifically NK cells, has the potential to yield transformational medicines and potentially overcome the challenges of treating solid tumors."

Editas Medicine is also advancing programs using CRISPR editing for the potential treatment of both solid and liquid tumors. The Company initiated IND-enabling studies for EDIT-201, a healthy donor NK (HDNK) engineered cell medicine for solid tumors and is advancing its engineered gamma-delta T cell program. In addition, the Company is advancing oncology therapies with engineered alpha-beta T cells in collaboration with Bristol Myers Squibb.

About Editas Medicine
As a leading genome editing company, Editas Medicine is focused on translating the power and potential of the CRISPR/Cas9 and CRISPR/Cas12a (also known as Cpf1) genome editing systems into a robust pipeline of treatments for people living with serious diseases around the world. Editas Medicine aims to discover, develop, manufacture, and commercialize transformative, durable, precision genomic medicines for a broad class of diseases. For the latest information and scientific presentations, please visit www.editasmedicine.com.

Forward-Looking Statements
This press release contains forward-looking statements and information within the meaning of The Private Securities Litigation Reform Act of 1995. The words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "target," "should,'' ''would,'' and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. The Company may not actually achieve the plans, intentions, or expectations disclosed in these forward-looking statements, and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in these forward-looking statements as a result of various factors, including: uncertainties inherent in the initiation and completion of pre-clinical studies and clinical trials and clinical development of the Company's product candidates; availability and timing of results from pre-clinical studies and clinical trials; whether interim results from a clinical trial will be predictive of the final results of the trial or the results of future trials; expectations for regulatory approvals to conduct trials or to market products and availability of funding sufficient for the Company's foreseeable and unforeseeable operating expenses and capital expenditure requirements. These and other risks are described in greater detail under the caption "Risk Factors" included in the Company's most recent Quarterly Report on Form 10-Q, which is on file with the Securities and Exchange Commission, and in other filings that the Company may make with the Securities and Exchange Commission in the future. Any forward-looking statements contained in this press release represent the Company's views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date. Except as required by law, the Company explicitly disclaims any obligation to update any forward-looking statements.

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