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Gritstone Oncology Announces Oral Presentation on MHC Class II Antigen Prediction at the AACR Annual Meeting in April 2019

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--MHC Class II Antigen Prediction by Gritstone's Proprietary Artificial Intelligence Platform EDGE™ Shows Significant Improvement Over Standard Prediction Tools --

--EDGE Enables Identification of Neoantigen Reactive T cells and T cell Receptors --

EMERYVILLE, Calif., Feb. 27, 2019 (GLOBE NEWSWIRE) -- Gritstone Oncology, Inc. (Nasdaq: GRTS), a clinical-stage biotechnology company developing the next generation of cancer immunotherapies to fight multiple cancer types, today announced two abstracts have been accepted for presentation at the upcoming American Association for Cancer Research (AACR) Annual Meeting 2019 in Atlanta, Georgia.

"In order to drive an effective anti-cancer immune response, T cells must recognize tumor-specific antigens (peptides) presented by either class I or class II major histocompatibility complex (MHC) molecules," said Andrew Allen, M.D., Ph.D., co-founder, president and chief executive officer of Gritstone Oncology. "Our artificial intelligence platform for neoantigen identification, EDGE, is designed to be a best-in-class tool for identifying these tumor antigens for use in immunotherapies. We have already demonstrated that EDGE is approximately nine-fold better than publicly available tools at predicting class I MHC-presented tumor-specific antigens. At AACR, we look forward to presenting data showing the significant progress we have made in predicting MHC class II-presented tumor-specific antigens, which has historically been a challenge for the field. Identification of MHC class II antigens expands our repertoire of tumor-specific targets and may increase the potency of our neoantigen-based therapies."

Gritstone's work on class II antigen prediction will be presented at AACR in an oral session. Additionally, Gritstone has leveraged its capabilities in neoantigen identification to efficiently identify neoantigen reactive T cells and T cell receptors, which have potential applications in cell therapy. As the field of engineered T cell therapies begins to evaluate solid tumor targets, accurate prediction of neoantigens makes the process of identifying relevant T cell receptors and T cells much more efficient – a potential key benefit of utilizing a powerful prediction tool such as EDGE. These data will be presented in a poster session.

Oral Presentation

Title: [MHC class II antigen identification for cancer immunotherapy by deep learning on tumor HLA peptides](#)
Session Date and Time: Tuesday, April 2, 2019 3:00 p.m. - 5:00 p.m. EST

Poster Presentation

Title: [Identification of pre-existing neoantigen-specific T cells in patients receiving checkpoint inhibitor therapy using a deep learning antigen prediction model](#)
Session Date and Time: Tuesday, April 2, 2019 1:00 p.m. - 5:00 p.m. EST

About EDGE™ (Epitope Discovery in cancer GENomes) Platform

The EDGE platform is designed to be a best-in-class machine-learning tool for the identification of tumor neoantigens presented on the surface of tumor cells. EDGE's prediction model was initially trained using a large dataset of human tumor and normal tissue samples with paired class I HLA-presented peptide sequences, HLA types and transcriptome RNA sequencing. The training dataset for EDGE includes hundreds of tumor and normal tissue samples, yielding over one million peptides, from patients of various ancestries with diverse HLA types. EDGE leverages a novel integrated neural network model architecture to model key features that are essential for accurate prediction of true tumor-specific neoantigens. Data demonstrating the neoantigen identification capabilities of EDGE were published in *Nature Biotechnology* in December 2018. Gritstone has issued patent coverage on EDGE. Neoantigens identified by EDGE are being utilized in our lead immunotherapy programs, GRANITE-001 and SLATE-001, to educate the immune system to attack these key tumor targets.

About Gritstone Oncology

Gritstone Oncology (Nasdaq: GRTS), a clinical-stage biotechnology company, is developing the next generation of cancer immunotherapies to fight multiple cancer types. Gritstone develops its products by leveraging two key pillars—first, a proprietary machine learning-based platform, Gritstone EDGE™, which is designed to predict, from a routine tumor biopsy, the tumor-specific neoantigens (TSNA) that are presented on a patient's tumor cells; and second, the ability to develop and manufacture potent immunotherapies utilizing patients' TSNA to potentially drive the patient's immune

system to specifically attack and destroy tumors. The company's lead product candidate, GRANITE-001, is a personalized neoantigen-based immunotherapy beginning Phase 1 clinical testing. Gritstone's second product candidate, SLATE-001, is a shared neoantigen ("off-the-shelf") immunotherapy which is advancing towards the clinic. Novel tumor-specific antigens can also provide targets for bispecific antibody (BiSAb) therapeutics for solid tumors, and Gritstone's BiSAb program is currently in lead optimization. For more information, please visit gritstoneoncology.com.

Gritstone Forward-Looking Statements

This press release contains forward-looking statements, including, but not limited to, statements related to the predictive capabilities of the EDGE Platform, its T cell and T cell receptor discovery program, and its investigational immunotherapies. Such forward-looking statements involve substantial risks and uncertainties that could cause Gritstone's research and clinical development programs, future results, performance or achievements to differ significantly from those expressed or implied by the forward-looking statements. Such risks and uncertainties include, among others, the uncertainties inherent in the drug development process, including Gritstone's programs' early stage of development, the process of designing and conducting preclinical and clinical trials, the regulatory approval processes, the timing of regulatory filings, the challenges associated with manufacturing drug products, Gritstone's ability to successfully establish, protect and defend its intellectual property and other matters that could affect the sufficiency of existing cash to fund operations. Gritstone undertakes no obligation to update or revise any forward-looking statements. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of the company in general, see Gritstone's most recent Quarterly Report on Form 10-Q filed on November 14, 2018 and any subsequent current and periodic reports filed with the Securities and Exchange Commission.

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