



Nature Medicine Publishes Interim Results from Gritstone bio's Phase 1/2 Study of "Off-the-Shelf" Neoantigen Vaccine Platform (SLATE)

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-- Paper details vaccine design optimization process of Gritstone's "off-the-shelf" or shared neoantigen vaccine platform, SLATE --

-- Discovery of a novel immunodominance hierarchy of tumor neoantigens (including KRAS) enabled the development of a more potent, KRAS-specific vaccine candidate (SLATE-KRAS) being studied by Steven A. Rosenberg of the National Cancer Institute (NCI) --

-- Publication underscores the important role of antigen selection and cassette design in the development of neoantigen-directed immunotherapy --

EMERYVILLE, Calif., April 15, 2024 (GLOBE NEWSWIRE) -- Gritstone bio, Inc. (Nasdaq: GRTS), a clinical-stage biotechnology company working to develop the world's most potent vaccines, announced today that a paper detailing the development of its "off-the-shelf" neoantigen platform, SLATE, recently published in *Nature Medicine*. The paper, "[A shared neoantigen vaccine combined with immune checkpoint blockade for advanced metastatic solid tumors: phase 1 trial interim results](#)," describes a novel immunodominance hierarchy of tumor neoantigens (including KRAS) that Gritstone discovered in Phase 1 translational studies and leveraged to develop SLATE-KRAS, a "pure" KRAS-directed candidate that demonstrated superior immunogenicity to the initial version in a subsequent Phase 2 study and is currently being evaluated in a novel cell therapy-vaccine combination study run by Steven A. Rosenberg of the National Cancer Institute (NCT06253520).

"The publication of these findings in *Nature Medicine* highlights the promise of our 'off-the-shelf' or shared neoantigen approach in solid tumors, one of the many elements embedded within our mission to develop the world's most potent vaccines," said Andrew Allen, M.D., Ph.D., Co-founder, President, and Chief Executive Officer of Gritstone bio. "Our team's innovative work to develop, optimize and validate SLATE positions Gritstone with two promising platforms to execute against our neoantigen-directed approach to oncology. It also enabled the pioneering collaboration that we are currently advancing with Dr. Rosenberg of the NCI, a luminary in the field. SLATE is ready for 'plug and play' application across a spectrum of solid tumors and could serve as a great complementary platform to GRANITE, our personalized vaccine program. We continue to have great conviction that both approaches could unlock new levels of immune responses for patients with solid tumors."

"This important publication underscores that a deep understanding of the mechanism and performance of therapeutic neoantigens in humans is likely critical for success in the promising field of neoantigen-directed immunotherapy. It also demonstrates our ability to select tumor antigens and optimize cassette design to elicit a potent antigen-specific immune response," said Karin Jooss, Ph.D., Executive Vice President, and Head of R&D at Gritstone bio. "We believe we have a leading understanding of the hierarchy of antigen presentation and competition – a great example outlined in this paper, where we took SLATE from bench to bedside to bench, and back – and have applied that understanding to optimize the design of our oncology vaccines. The learnings and techniques described add to Gritstone's already robust body of clinical insights to drive potent tumor-specific T cell responses to neoantigens, a unique potential advantage in the field."

Results from the SLATE 1/2 Study

The data published in *Nature Medicine* report the interim safety, tolerability and immunogenicity results from the Phase 1 portion of the Phase 1/2 clinical trial (NCT03953235) assessing the off-the-shelf vaccine SLATEv1 in patients with advanced/metastatic solid tumors. SLATEv1 utilizes a heterologous ChAd68 followed by samRNA-based vaccine regimen encoding 20 shared neoantigens targeting multiple recurrent mutations in several oncogenes, including KRAS, TP53, BRAF and CTNNB1. Neoantigens were identified using Gritstone bio's proprietary neoantigen prediction platform, EDGE™, and selected based on shared mutation and matched HLA frequencies in patient populations with solid tumors. Biased T cell responses toward HLA-matched TP53 neoantigens encoded in the vaccine relative to KRAS neoantigens expressed by the patients' tumors, indicated a previously unknown hierarchy of neoantigen immunodominance that may impact the therapeutic efficacy of multi-epitope shared neoantigen vaccines. These data led to the development of SLATE-KRAS, a vaccine focused on KRAS-derived neoantigens that subsequently was evaluated in the Phase 2 portion of the clinical study. Initial Phase 2 data suggesting an increased vaccine induced T cell response were presented in September 2022 ([press release](#)).

To view all of Gritstone bio's scientific publications, visit gritstonebio.com/publications.

About SLATE ("off-the-shelf" neoantigen vaccine program)

Gritstone's neoantigen-based vaccine programs, GRANITE (personalized) and SLATE ("off-the-shelf") are engineered to elicit a significant T cell response for patients with solid tumors. Like GRANITE, SLATE uses Gritstone's proprietary epitope identification platform (EDGE™) and vaccine vectors (Chimpanzee Adenovirus and self-amplifying mRNA) to deliver each patient a set of neoantigens that are predicted to drive a T cell response. Unlike GRANITE, SLATE delivers a set of neoantigens that are shared across a subset of cancer patients based on common gene mutations, such as KRAS mutations. In Phase 1/2 study, SLATE-KRAS demonstrated positive results in patients with late-line non-small cell lung cancer and microsatellite stable colorectal cancer. With these results, Gritstone believes the SLATE platform is ready for 'plug and play' application across solid tumor indications and shared tumor neoantigen classes.

About Gritstone bio

Gritstone bio, Inc. (Nasdaq: GRTS) is a clinical-stage biotechnology company that aims to develop the world's most potent vaccines. We leverage our innovative vectors and payloads to train multiple arms of the immune system to attack critical disease targets. Independently and with our collaborators, we are advancing a portfolio of product candidates to treat and prevent viral diseases and solid tumors in pursuit of improving patient outcomes and eliminating disease. www.gritstonebio.com

Gritstone Forward-Looking Statements

This press release contains forward-looking statements, including, but not limited to, statements related to our clinical and regulatory development plans for our product candidates; our expectations regarding the data to be derived in our ongoing and planned clinical trials; the timing of commencement of our future nonclinical studies, clinical trials and research and development programs; our ability to discover, develop and advance product candidates into, and successfully complete, clinical trials; and our plans and strategy regarding maintaining existing and entering into new collaborations and/or partnerships. 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' clinical 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 Annual Report on Form 10-K filed on March 5, 2024 and any subsequent current and periodic reports filed with the Securities and Exchange Commission.

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