Gritstone bio Announces Publication of Interim Results from Phase 1 Study of Self-amplifying mRNA (samRNA) Vaccine Against COVID-19 in Nature Communications

June 8, 2023

-- Potent and durable immunogenicity achieved with low dose self-amplifying mRNA vaccine (samRNA) candidate --

-- Immunity boosted for at least 6 months in previously vaccinated-older adults (administration post-primary series of Vaxzevria®, Comirnaty® or Spikevax®) --

-- Data underscore the potential of Gritstone's samRNA candidates to serve as next-generation vaccines against COVID-19 and other infectious diseases --

EMERYVILLE, Calif., June 08, 2023 (GLOBE NEWSWIRE) -- Gritstone bio, Inc. (Nasdaq: GRTS), a clinical-stage biotechnology company that aims to develop the world's most potent vaccines, today announced that interim results from an ongoing Phase 1 study evaluating the company's self-amplifying mRNA (samRNA) vaccine as a boost against COVID-19 (CORAL-BOOST) were published in *Nature Communications*. The results, which demonstrate that Gritstone's samRNA vaccine candidate boosted immunity for at least 6 months in previously vaccinated older adults, are generally consistent with initial results from a separate Phase 1 study in previously unvaccinated subjects (CORAL-CEPI). Gritstone is currently evaluating multiple samRNA candidates across three ongoing Phase 1 studies. All candidates deliver full-length Spike and selected conserved non-Spike T cell epitopes with the aim of driving a potent, broad, and durable immune response against the virus.

"Publication of these results in *Nature Communications* supports the scientific rigor of our work and potential clinical utility of our next-generation vaccine platform for the prevention of infectious diseases, including coronaviruses, such as COVID-19," said Andrew Allen, M.D., Ph.D., Co-founder, President and Chief Executive Officer of Gritstone. "The published results are part of a rapidly growing body of evidence demonstrating the potential advantages of samRNA over first-generation COVID-19 vaccines, including extended antigen expression and dose sparing potential. It's clear that new technologies are needed to help prevent and manage future pandemics, and we believe the results we are seeing from our CORAL program represent a promising step forward in this endeavor."

The publication details interim analyses from a Phase 1 dose-escalation trial evaluating Gritstone's samRNA candidate (GRT-R910) in previously vaccinated healthy older adults (CORAL-BOOST/NCT05148962). Results demonstrate a favorable safety and tolerability profile in this vulnerable population. Most adverse events (AEs) following dosing were mild to moderate and transient with no treatment-related serious AEs observed. With respect to immunogenicity, neutralizing antibody titers against ancestral Spike and variants of concern were boosted by the samRNA candidate, and contrasting to authorized vaccines, persisted through at least 6 months following the booster dose. Furthermore, Gritstone's samRNA increased and potentially broadened functional Spike-specific T cell responses and primed T cell responses to conserved non-Spike epitopes.

"The ability of a next-generation vaccine candidate to drive more potent, durable, and broad neutralizing antibodies and T cell responses against variants of concern not included in the vaccine is key to delivering long-term variant-proof protection," said Karin Jooss, Ph.D., Executive Vice President and Head of R&D at Gritstone. "These data support the potential of a samRNA-based SARS-CoV-2 vaccine candidate to safely induce broad protection by boosting T cell responses in addition to durable, cross-neutralizing antibodies that are maintained for at least 6 months. We are excited by the differentiating characteristics we are seeing with our novel vaccine candidates, and the results published in *Nature Communications* further support our hypothesis that samRNA has the potential to be a next-generation vaccine platform technology with dose sparing potential against SARS-CoV-2 and beyond."

About Self-amplifying mRNA (samRNA)
Gritstone's samRNA vector is based on a synthetic RNA molecule derived from a wild-type Venezuelan Equine Encephalitis Virus (VEEV) replicon with the goal of extending the duration and magnitude of immunogen expression to drive potent and durable immune responses. The samRNA is delivered in a lipid nanoparticle (LNP) formulation. Like traditional mRNA vaccines, samRNA vaccines use the host cell's transcription system to produce target antigens to stimulate adaptive immunity. Unlike traditional mRNA, samRNA has an inherent ability to replicate by creating copies of the original strand of RNA once it is in the cell. Potential benefits of samRNA may include extended duration and magnitude of antigen expression, strong and durable induction of neutralizing antibody and T cell immunity (CD4+ and CD8+), dose sparing, and a refrigerator stable product.

About the CORAL Program
Gritstone's CORAL program is applying Gritstone's infectious disease approach, which aims to drive both B cell and T cell immunity using self-amplifying mRNA (samRNA), against SARS-CoV-2. CORAL currently includes three ongoing Phase 1 trials: CORAL-BOOST, which is evaluating one construct in a boost setting (following primary series of currently-approved COVID-19 vaccines); CORAL-CEPI, which is evaluating multiple constructs in virus-naïve, convalescent, and HIV+ subjects in South Africa; and CORAL-NIH, which is being run by the National Institute of Allergy and Infectious Disease (NIAID) and is evaluating multiple constructs in previously vaccinated healthy volunteers. The program serves as proof-of-concept for the application of Gritstone's platform against coronaviruses and other infectious diseases and is supported by the Bill & Melinda Gates Foundation, NIAID, and the Coalition for Epidemic Preparedness Innovations (CEPI).

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 9, 2023 and any subsequent current and periodic reports filed with the Securities and Exchange Commission.

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