Gritstone Presents Positive Results from Two Phase 1 CORAL Studies, Providing Further Proof-of-Concept for Self-amplifying mRNA (samRNA) in Infectious Diseases

October 25, 2022

-- New data from CORAL-BOOST study demonstrate broad and durable immune response; high neutralizing antibody and T cell responses at 6 months post-boost vaccination --

-- Interim results from CORAL-CEPI show good tolerability and immunogenicity in all vaccine-naïve subjects dosed --

-- Data provide further support of Gritstone's self-amplifying mRNA (samRNA) as platform for infectious disease vaccines --

EMERYVILLE, Calif., Oct. 25, 2022 (GLOBE NEWSWIRE) -- Gritstone bio, Inc. (Nasdaq: GRTS), a clinical-stage biotechnology company that aims to develop the world's most potent vaccines, today announced positive Phase 1 results from its ongoing CORAL-BOOST and CORAL-CEPI trials evaluating its self-amplifying mRNA (samRNA) vaccine candidates against SARS-CoV-2. The results, which will be presented by the studies' lead investigators in a company-sponsored webinar at 8:00 am ET today, collectively demonstrate Gritstone's samRNA vaccine candidates are well-tolerated and capable of driving strong, potentially durable and broad immunogenicity across several subject populations and settings. These results build upon previous preclinical and clinical findings and support the application of Gritstone's samRNA platform for the prevention and treatment of infectious diseases.

"Self-amplifying mRNA (samRNA) is rapidly emerging as a well-tolerated, scalable and widely-applicable platform technology where one can develop multiple vaccines simply by changing the sequence of the antigen that is encoded in the vector RNA," said Andrew Allen, M.D., Ph.D., Co-founder, President, and Chief Executive Officer of Gritstone. "These results show good immunogenicity and tolerability at low doses, with preliminary durability data supporting the potential for samRNA as a differentiated approach for SARS-CoV-2 and other viruses and pathogens, where much unmet need persists."

CORAL-CEPI Results (Presented by Professor Shabir Madhi of the U. of Witwatersrand, Johannesburg, South Africa):
The Phase 1 CORAL-CEPI trial (n=340) is evaluating T cell-enhanced omicron- and beta-spike constructs in vaccine-naïve, convalescent and HIV+ subjects. The study is being run in South Africa with support from the Coalition for Epidemic Preparedness Innovations (CEPI). Data are from Part A of the study (n=120) where subjects received beta-spike plus T Cell Epitope candidate vaccines at 3 dose levels.

In Part A (virus-naïve and convalescent subjects), Gritstone's samRNA vaccine demonstrated:

- A favorable safety and tolerability profile
  - All dose levels tested (3µg, 10µg and 30µg) were well tolerated
  - Mild and moderate solicited adverse events (AEs, grade 1-2) were largely resolved within 1-2 days after dosing
  - 3 subjects out of 120 developed transient grade 3 AEs
- Strong induction of neutralizing antibodies (nAb) and IgG across all variants studied to date (wild-type, beta and delta)
  - All dose levels were immunogenic in all cohorts
  - Two doses of samRNA vaccine candidate in SARS-CoV-2-naïve subjects (defined as baseline anti-N seronegative) induced strong nAb against both beta and delta variants, quantified using a live virus microneutralization assay performed by a reference laboratory (Vismederi, Italy)
  - One dose of samRNA vaccine candidate in SARS-CoV-2 convalescent subjects boosted nAb titers
- A dose-response effect was observed, most notably between 3µg and 10µg

CORAL-BOOST Results (Presented by Professor Andy Ustianowski of U. of Manchester, Manchester, UK):
Phase 1 study in the UK evaluating a single dose of samRNA vaccine candidate (10µg or 30µg) as a booster against SARS-CoV-2 in healthy volunteers >60 years old. Originally, the study focused on subjects who had previously received two prior doses of Vaxzervria (AstraZeneca's adenovirus vaccine) but was expanded in January 2022 to include two cohorts that previously received an mRNA primary series.

In 32 subjects, Gritstone's samRNA vaccine candidate demonstrated:

- A favorable safety and tolerability profile
  - Both 10 and 30mg doses of samRNA were well-tolerated, with transient mild to moderate adverse events (AEs)
  - 3 subjects out of 32 developed transient grade 3 AEs
- Broad, durable and strong neutralizing antibody responses
  - Broad and potent nAb responses, and broad anti-Spike IgG responses, were elicited against the vaccine variant (D614G) and key variants of concern (VoC) including beta, delta, omicron BA.1, and omicron BA.4/5
  - Persistence of nAb responses to 6 months was observed – nAb to vaccine variant and VoC persisted at least to day 180 with no decay in titer observed (N=7 subjects)
- A durable boost to pre-existing T cell responses to Spike antigens
  - Increased and durable Spike-specific T cell responses (measured by ex vivo ELISpot) 4 weeks and 6 months

post-boost in individuals after ChAd-OX1 primary series
- Priming of T cell responses to the non-Spike viral epitopes, that are part of the vaccine cassette, with a single samRNA vaccination

“These data demonstrate exciting preliminary performance of our innovative samRNA vaccine candidates potentially delivering against the key unmet needs in the field – broad and durable cellular and humoral immunity. These qualities have direct applicability to a broad range of infectious diseases. In our CORAL-CEPI results specifically, we see preliminary and encouraging evidence that our samRNA vaccine candidate can trigger a broad immune response for other variants than those included in the construct.” said Karin Jooss, EVP and Head of R&D at Gritstone bio. “As an early adopter of samRNA with substantial experience applying it in our cancer programs (part of our prime-boost approach), we believe Gritstone bio is uniquely positioned to unlock the value of this powerful vaccine platform against a variety of infectious diseases. We look forward to continuing these studies and to interrogating the many ways that we can apply self-amplifying mRNA to enable differentiated, broad, and lasting immune response.”

Webinar Details
Date and time: 8:00 – 9:00 am ET Tuesday, October 25
Link: To register for the webinar, please click here

Replay of the webinar will be accessible for 30 days following the event on the events page of the company’s website: https://ir.gritstonebio.com/investors/events.

About the CORAL Program
Gritstone’s CORAL program is evaluating the company’s infectious disease approach, which is designed to drive both B cell and T cell immunity using self-amplifying mRNA (samRNA) against SARS-CoV-2. The program 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 create 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 the potential of Gritstone’s therapeutic programs; the advancements in Gritstone’s ongoing clinical trials; the timing of data announcements related to ongoing clinical trials and the initiation of future clinical trials. 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 10, 2022, as well as Gritstone’s Quarterly Reports on Form 10-Q filed on May 5, 2022 and August 4, 2022 and any current and periodic reports filed with the Securities and Exchange Commission. The forward-looking statements in this press release are based on information available to Gritstone as of the date hereof. Gritstone disclaims any obligation to update any forward-looking statements, except as required by law.

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