Sorrento Announces Its Lead Protein-Based COVID-19 Vaccine Candidate – DYAI-100 – Elicits Strong Neutralizing Immune Responses in Vaccinated Animals Against SARS-CoV-2 and Multiple Major Variants of Concern

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- Immunization with a protein-based immunogen, DYAI-100, a receptor binding domain (RBD) of SARS-CoV-2, resulted in potent B cell immunity in preclinical studies, with strong serological recognition of the original SARS-CoV-2 virus and major variants of concern (Alpha, Beta, Gamma, and Delta; “VOCs”).
- The sera of vaccinated mice demonstrated potent neutralization of viral infection by the original SARS-COV-2 and major VoCs, such as Beta and Delta, and to a lesser extent Gamma *in vitro* in a live virus challenge Vero-E6 cell model.
- Sorrento and its collaboration partner, Dyadic International, Inc., are working together to complete the IND-enabling studies for IND submission for human vaccination trials globally.
- A MultiValent RBD-based vaccine utilizing the RBDs from SARS-CoV-2 and its major VoCs is in development to potentially serve as a universal vaccine and potentially as a universal booster for other COVID-19 vaccines.

SAN DIEGO, Aug. 19, 2021 (GLOBE NEWSWIRE) -- Sorrento Therapeutics, Inc. (Nasdaq: SRNE, "Sorrento"), a clinical and commercial stage biopharmaceutical company developing new therapies to treat cancer, pain and COVID-19, released today a preprint publication, which is accessible at: https://www.biorxiv.org/content/10.1101/2021.08.17.456704v1.full.pdf. The publication details preclinical vaccination studies of a new to-be-licensed and developed protein-based COVID-19 vaccination candidate, DYAI-100. The new RBD-based COVID-19 vaccination candidate demonstrated in preclinical studies the potential to elicit potent neutralizing B-cell immune responses against the original SARS-CoV-2 strain and its emerging variants, including Beta and Delta.

The generation of a protein-based vaccination candidate that provides protection against the original SARS-CoV-2 virus and emerging VoCs has proved to be challenging. The publication reports the protective neutralizing activities of the sera of vaccinated animals against a broad spectrum of SARS-CoV-2 virus and its major VoCs by immunization with recombinant Spike protein receptor binding domain (RBD) administered in conjunction with aluminum-phosphate adjuvant intramuscularly. Immunizing mice with RBD protein vaccine with simple aluminum-phosphate adjuvant led to the production of IgG antibodies recognizing the Spike protein of the prototype SARS-CoV-2 as well as the VoCs, such as Alpha (“United Kingdom”), Beta (“South Africa”), Gamma (“Brazil/Japan”), and Delta (“India”). RBD protein immunization induced to the activation of a Th1 polarization of CD4 positive T cells. Furthermore, RBD protein immunization produced IgG antibodies *in vivo*, which exerted high neutralizing activity against live SARS-CoV-2 and the highly transmissible VoCs, Beta and Delta, as well as Gamma to a lesser extent. Thus, DYAI-100 represents a promising COVID-19 vaccination candidate against COVID-19 that may potentially offer broad protective range against emerging VOCs of SARS-CoV-2 virus.

About Sorrento Therapeutics, Inc.

Sorrento is a clinical stage, antibody-centric, biopharmaceutical company developing new therapies to treat cancers and COVID-19. Sorrento's multimodal, multipronged approach to fighting cancer is made possible by its extensive immuno-oncology platforms, including key assets such as fully human antibodies (“G-MAB™ library”), clinical stage immuno-cellular therapies (“CAR-T”, “DAR-T™”), antibody-drug conjugates (“ADCs”), and clinical stage oncolytic virus (“Seprehvir™”). Sorrento is also developing potential antiviral therapies and vaccines against coronaviruses, including COVIGUARD™, COVI-AMG™, COVISHIELD™, Gene-MAb™, COVI-MSC™ and COVIDROPS™; and diagnostic test solutions, incl COVITRACK™, COVISTIX™ and COVITRACE™

Sorrento's commitment to life-enhancing therapies for patients is also demonstrated by our effort to advance a first-in-class (TRPV1 agonist) non-opioid pain management small molecule, resiniferatoxin (“RTX”), and SP-102 (10 mg, dexamethasone sodium phosphate viscous gel) (SEMDEXA™), a novel, viscous gel formulation of a widely used corticosteroid for epidural injections to treat lumbosacral radicular pain, or sciatica, and to commercialize ZTlido® (lidocaine topical system) 1.8% for the treatment of post-herpetic neuralgia. RTX has completed a Phase IB trial for intractable pain associated with cancer and a Phase 1B trial in osteoarthritis patients. SEMDEXA is in a pivotal Phase 3 trial for the treatment of lumbosacral radicular pain, or sciatica. ZTlido® was approved by the FDA on February 28, 2018.

For more information visit www.sorrentotherapeutics.com.

Forward-Looking Statements

This press release and any statements made for and during any presentation or meeting contain forward-looking statements related to Sorrento Therapeutics, Inc., under the safe harbor provisions of Section 21E of the Private Securities Litigation Reform Act of 1995 and subject to risks and uncertainties that could cause actual results to differ materially from those projected. Forward-looking statements include statements regarding DYAI-100 and its properties, including its induction of potent neutralization activity against SARS-CoV-2 and its variants of concern, including Alpha, Beta, Gamma and Delta; the collaboration between Sorrento and Dyadic, including but not limited to, the development of DYAI-100 and completion of IND-enabling studies for DYAI-100; the potential for DYAI-100 to serve as a universal vaccine and as a universal booster for other COVID-19 vaccines; the ability of an RBD protein-based vaccine, including DYAI-100, to elicit strong immunity and produce IgG antibodies against SARS-CoV-2 and its variants of concern when administered intramuscularly in conjunction with an adjuvant, including an aluminum-phosphate adjuvant; and Sorrento’s expectation of obtaining licensing rights for DYAI-100 from Dyadic. Risks and uncertainties that could cause our actual results to differ materially and

adversely from those expressed in our forward-looking statements, include, but are not limited to: risks related to Sorrento's technologies and prospects, including, but not limited to risks related to seeking regulatory approval for DYAI-100; clinical development risks, including risks in the progress, timing, cost, and results of clinical trials and product development programs; risk of difficulties or delays in obtaining regulatory approvals; risks that clinical study results may not meet any or all endpoints of a clinical study and that any data generated from such studies may not support a regulatory submission or approval; risks that prior test, study and trial results may not be replicated in future studies and trials; risks of manufacturing and supplying drug product; risks related to leveraging the expertise of its employees, subsidiaries, affiliates and partners to assist Sorrento in the execution of its therapeutic antibody product candidate strategies; risks related to the global impact of COVID-19; and other risks that are described in Sorrento's most recent periodic reports filed with the Securities and Exchange Commission, including Sorrento's Annual Report on Form 10-K for the year ended December 31, 2020, and subsequent Quarterly Reports on Form 10-Q filed with the Securities and Exchange Commission, including the risk factors set forth in those filings. Investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this release and we undertake no obligation to update any forward-looking statement in this press release except as required by law.

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