

# News Release

## SORRENTO DEVELOPS STI-4398 (COVIDTRAP™ PROTEIN) FOR POTENTIAL PREVENTION AND TREATMENT OF SARS-COV-2 CORONAVIRUS DISEASE (COVID-19)

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- COVIDTRAP™ is a proprietary ACE2-Fc protein that binds to the S1 domain of the spike protein of the SARS-CoV-2 virus;
- COVIDTRAP is designed to block the SARS-CoV-2 virus from binding and infecting respiratory epithelial cells, which is expected to effectively interrupt the viral life cycle;
- COVIDTRAP is engineered with a long half-life to provide prophylactic measures for at-risk populations (healthcare workers) with frequent exposure to the SARS-CoV-2 virus;
- COVIDTRAP preserves the ACE2 enzymatic activity, which is important in maintaining normal blood pressure and healthy blood flow into the infected lung tissues when used in advanced COVID-19 patients; and
- STI-4398 is in the cGMP cell line development stage and could be ready for large-scale production in Sorrento's cGMP facilities in San Diego for human clinical trials and commercialization upon receipt of requisite regulatory approvals.

SAN DIEGO, March 20, 2020 (GLOBE NEWSWIRE) -- Sorrento Therapeutics, Inc. (Nasdaq: SRNE, "Sorrento") announced it has produced a preclinical batch of the STI-4398 (COVIDTRAP) protein to immediately commence testing its neutralization and blocking activity in preventing SARS-CoV-2 virus from infecting ACE2-expressing cells.

STI-4398 is a proprietary ACE2 (angiotensin-converting enzyme 2)-Fc fusion protein (COVIDTRAP). The STI-4398 protein binds to the S1 domain of the spike protein, which is expected to block the spike protein of the SARS-CoV-2 virus to bind the ACE2 receptors present on the target respiratory epithelial cells. Without the ability to penetrate target cells, the SARS-CoV-2 virus cannot replicate and spread itself. By interfering with the viral infection cycle, STI-4398 might be the most effective way to prevent an infection to progress to a fully advanced COVID-19 disease. This approach could be ideal in generating passive immunity and shielding at-risk populations, including healthcare providers, the elderly population or patients with compromised immune systems, from developing the COVID-19 disease after viral exposure.

The STI-4398 COVIDTRAP preserves the ACE2 enzyme activity in converting angiotensin II to angiotensin 1-7, resulting in reduced vasoconstriction and increased blood flow to the infected lung

tissue. It could potentially confer organ protection and lessen severe acute respiratory distress syndrome in COVID-19 patients. Although STI-4398's primary functionality is to interfere with the viral infection cycle, the COVIDTRAP protein with active ACE2 enzyme may have therapeutic potential for late-stage COVID-19 disease.

STI-4398 has been engineered to have a prolonged half-life in the human blood circulation, which may allow it to be used prophylactically to confer short-term and durable passive immunity (with repeated doses) to those that are regularly exposed to the virus (healthcare workers) or are at particular risk following an exposure event (elderly, patients with hypertension or immune-compromised patients).

In vitro cell studies for SARS-CoV-2 virus infection and neutralization are expected to be conducted in the next few weeks in collaboration with world-leading coronavirus experts.

Sorrento scientists are in parallel working speedily to generate a stable CHO (Chinese Hamster Ovary) manufacturing cell line that would enable high-yield cGMP production of the COVIDTRAP fusion protein. Sorrento's approximately 300,000 square feet of state-of-the-art R&D and cGMP facilities in San Diego, CA and Suzhou, China are dedicated to therapeutic antibodies and protein production and cell therapies, as well as its fill-and-finish cGMP facilities. These existing manufacturing infrastructures and capacity are available for rapid and significant scaled-up manufacturing to meet emergency demand following successful human trials. Sorrento currently anticipates it will complete the enabling studies for an expedited IND filing in the next few months.

"The COVIDTRAP candidate product developed by our scientists in the past month follows the similar approach we take to developing immune-oncology products for suppressing and/or killing off cancer cells by targeting specific tumor targets on cancer cells. We believe the same approach works for deadly viral diseases," stated Dr. Henry Ji, Chairman and CEO of Sorrento Therapeutics. "Our immunotherapy expertise is relevant and applicable to the COVID-19 disease. We are looking forward to quickly demonstrating our COVIDTRAP's safety and efficacy in IND-enabling preclinical studies and clinical trials and make this potentially life-saving medicine available in the fight against the COVID-19 pandemic."

### **About Sorrento Therapeutics, Inc.**

Sorrento is a clinical stage, antibody-centric, biopharmaceutical company developing new therapies to treat cancers. 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"), intracellular targeting antibodies ("iTAbs"), antibody-drug conjugates ("ADC"), and clinical stage oncolytic virus ("Seprehvir®").

Sorrento's commitment to Saving-Life™ and Improving-Life™ medicine and therapy 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 ZTlido® (lidocaine topical system) 1.8% for the treatment of post-herpetic neuralgia. Resiniferatoxin is completing a phase IB trial for intractable pain associated with cancer and a phase 1B trial in osteoarthritis patients. ZTlido® was approved by the FDA on February 28, 2018.

For more information visit [www.sorrentotherapeutics.com](http://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 the expected timing for the completion of ongoing studies for the treatment of the SARS-CoV-2 virus using STI-4398 COVIDTRAP and data read-outs related thereto; the expected timing for commencing and completing registrational studies and for submitting an IND application for STI-4398 COVIDTRAP for the treatment of the SARS-CoV-2 virus; the therapeutic potential for STI-4398 COVIDTRAP for late-stage COVID-19 disease; STI-4398 COVIDTRAP's ability to treat and prevent coronaviruses; STI-4398 COVIDTRAP's expected half-life; and Sorrento's potential position in the anti-viral immunity industry. 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 and its subsidiaries', affiliates' and partners' technologies and prospects and collaborations with partners, including, but not limited to risks related to conducting pre-clinical trials and seeking IND regulatory approval for STI-4398 COVIDTRAP; conducting and receiving results of clinical trials for STI-4398 COVIDTRAP; the clinical and commercial success of the treatment of the SARS-CoV-2 virus infections using STI-4398 COVIDTRAP; the viability and success of using STI-4398 COVIDTRAP for treatments in anti-viral therapeutic areas, including coronaviruses; 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 of manufacturing and supplying drug product; risks related to leveraging the expertise of its employees, subsidiaries, affiliates and partners to assist the company in the execution of its STI-4398 COVIDTRAP strategies; 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, 2019, 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.

## Media and Investor Relations

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