IN-CELL-ART and SmartPharm Therapeutics to Collaborate to Develop a Novel Immunotherapeutic Approach Against COVID-19

The two companies will jointly develop a novel approach aiming to produce anti-COVID-19 antibodies directly in the patient

Boston, Massachusetts (USA) and Nantes (France), April 15, 2021

SmartPharm Therapeutics ("SmartPharm") and IN-CELL-ART announce a collaboration to develop a novel immunotherapeutic approach based on use of IN-CELL-ART's NANOTAXI® nanocarrier technologies to formulate DNA-encoded monoclonal antibody targeting SARS-CoV-2, the virus that causes COVID-19. This approach is designed to enable a person to produce a protective monoclonal antibody from a DNA, regardless of their immune state or vaccination status. SmartPharm Therapeutics ("SmartPharm") is a developer of next-generation non-viral gene therapy technologies and a wholly owned subsidiary of Sorrento Therapeutics, Inc. (Nasdaq: SRNE, "Sorrento"). IN-CELL-ART is a development stage RNA and DNA company specializing in nanocarrier technologies named NANOTAXI.

This collaboration is part of an agreement awarded to SmartPharm by the Defense Advanced Research Projects Agency (DARPA) and co-funded by the Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND) to develop a rapid countermeasure to COVID-19. The agreement spans initial demonstration of preclinical proof-of-concept studies through initiation of clinical studies. IN-CELL-ART is providing a NANOTAXI produced under cGMP standards and suitable for use in clinical testing.

"IN-CELL-ART's proprietary NANOTAXI platform can unlock the promise of non-viral nucleic acids for the development of vaccines and biotherapeutics to treat acquired or inherited diseases" said Bruno Pitard, co-founder of IN-CELL-ART. "We are delighted to apply our NANOTAXI technology to delivery of DNA to produce antibodies that can prevent COVID-19 infection."

The project seeks to produce protective monoclonal antibodies directly in the muscle of the recipient from a DNA sequence identified by SmartPharm that is formulated with a "NANOTAXI" developed by IN-CELL-ART. The technology gives the muscle the ability to produce antibodies over for a period of time that can circulate throughout the body, providing protection from COVID-19 infection. Using DNA to induce the body to produce a prophylactic antibody in the body has the potential advantages of enabling much longer-term expression of antibodies from a single injection and achieving substantial economies of scale and cost efficiencies compared to infused recombinant monoclonal antibodies.

Dr. Robert Allen, the Chief Scientific Officer of SmartPharm, said “we are pleased with the performance of the NANOTAXI with our novel DNA platform and believe this combination can provide substantial advantages in producing a product that can be used for protection of large populations of people at risk for COVID-19, regardless of their vaccination status. We look forward to developing this new approach with IN-CELL-ART.”

About In-Cell-Art

IN-CELL-ART (ICA), which is headquartered in Nantes (France) is a biopharmaceutical company specializing in the preclinical and pharmaceutical development of nanocarriers named NANOTAXI® for macromolecular drugs. Its founder and research team, which includes a Nobel Laureate, have designed new classes of vectors that are organized on a nanometric scale, which enables them to cross the cell barrier efficiently and safely. ICA NANOTAXI technology displays unique safety and industrial properties for development of (i) DNA vaccines with on-going clinical development to treat hepatocellular carcinoma, and many preclinical development of vaccine candidates in the field of infectious diseases (ii) mRNA vaccines with selected NANOTAXI assessed in $33.1 million RN-ARMORVAX consortium, co-funded by US Defense Advanced Research Projects Agency (DARPA), Curevac and Sanofi-Pasteur, (iii) mRNA and DNA therapies leading to the dramatic increase in therapeutic protein expression using cells of the body as bioreactor.

IN-CELL-ART is a privately held company, which was founded in 2005, awarded in 2012 and 2013 of the Fast 50 Deloitte award, and in 2013 of Territoires Innovation Pays de la Loire Awards.

About SmartPharm Therapeutics

SmartPharm Therapeutics, Inc., a wholly owned subsidiary of Sorrento Therapeutics, Inc. (Nasdaq: SRNE), is a development-stage biopharmaceutical company focused on developing next-generation, non-viral gene therapies for the treatment of serious or rare diseases with the vision of creating “biologics from within.” SmartPharm is currently developing a novel pipeline of non-viral, gene-encoded proteins for the treatment of conditions that require biologic therapy with a current focus on COVID-19. SmartPharm commenced operations in 2018 and is headquartered in Cambridge, MA, USA. For more information, please visit www.smartpharmtx.com.

About Sorrento Therapeutics

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, including COVITRACK™, COVISTIX™ and COVITRACE™. 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 IN-CELL-ART and SmartPharm's plans to develop a novel immunotherapeutic approach based on NANOTAXI®-formulated DNA to enable a person to produce monoclonal antibodies regardless of immune state or vaccination status; the potential for this technology to enable production of antibodies over a sustained period in circulation that is protective against COVID-19; the potential advantage of enabling longer-term expression of antibodies from a single inoculation; and the potential advantages of achieving substantial economies of scale or cost efficiencies compared to infused recombinant monoclonal antibodies. 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 any such novel immunotherapeutic approach; 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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