

Celemics & South Dakota State Univ, announce partnership of NGS based Multiple Swine Pathogen Co-Detection Panel

The proposed NGS based Multiple Swine Pathogen the Co-Detection panel is seen as a revolutionary step towards preventing swine respiratory diseases

GEUMCHEON-GU, SEOUL, SOUTH KOREA, July 6, 2021 /EINPresswire.com/

-- Celemics, [South Dakota State](#)

[University](#), announce partnership for the development of Hybridization NGS-based Multiple Swine Pathogen Co-Detection Panel

: The proposed methods are seen as a revolutionary step towards preventing swine respiratory diseases

July 07, 2021, Seoul, Korea: Celemics, Inc. (www.celemics.com) has partnered with South Dakota State University's Animal Disease Research and Diagnostic Laboratory (ADRDL) to create the first-ever hybridization-based next generation sequencing (NGS) kit to detect viral and bacterial swine respiratory pathogens.

Most current diagnostic technologies are based on culture or qPCR. These widely used methods come with a great amount of limitations in terms of detecting a wide range of pathogens. The new and proposed breakthrough technique can make it possible to detect several viral and bacterial pathogens at once.

Celemics Inc. is known for its innovative and ground-breaking research. It was the need of the hour to alter the paradigm of medicine for swine respiratory diagnosis and treatment. It is hoped that their much-welcomed partnership with the esteemed South Dakota State University will bring revolutionary methods for early detection and cure to the industry.

Until this point in time, the genetic characterization, including whole genome sequence information for viral pathogens and multi-locus sequencing typing (MLST) analysis for bacterial pathogens, is attained through pathogen detection methods. This joint venture of research between the two reputed names has given them hope for improved overall herd health



Celemics, South Dakota State University, announce partnership for the development of Hybridization NGS-based Multiple Swine Pathogen Co-Detection Panel.

outcomes. The technology aims to overcome the shortfalls of modern diagnostics by enabling highly multiplexed detection and sequence characterization. Not only would this be more efficient but considerably cost-effective in comparison to the existing practices.

We spoke to Mr. Benjamin Hause, Assistant Professor in the Department of Veterinary and Biomedical Sciences, about this promising prospect:

“We are pleased to partner with Celemics on developing and bringing this exciting new technology to the swine industry,” “Celemics’ hybridization panel represents a large leap forward in our ability to detect and concurrently genetically characterize swine pathogens. While we focus on the most significant pathogens such as porcine reproductive and respiratory syndrome virus and influenza A virus, clinical disease is often the end result of co-infections with a number of viruses and bacteria. Celemics’ technology will enable comprehensive pathogen screening that will allow better herd management and improved swine health.”

The technology aims to overcome the shortfalls of modern diagnostics by enabling highly multiplexed detection and sequence characterization. Not only would this be more efficient but considerably cost-effective in comparison to the existing practices.

The kit results from years of remarkable research and comprises more than 50 different viral and bacterial swine pathogens. All of these sequences have been carefully chosen based on the study of patterns that are relevant to swine health and include domestically critical species such as the porcine reproductive and respiratory syndrome virus (PRRSV) and influenza A virus, along with foreign viruses such as African swine fever virus (ASFV) and foot and mouth disease virus.

“With this new partnership, we hope to provide clinicians, veterinarians, and livestock breeders with a powerful, comprehensive tool for swine disease detection and prevention,” said co-CEO and founder of Celemics, Dr. Hyoki Kim.

Through the advantages of hybridization NGS, we hope to provide a kit capable of revolutionizing clinical research and diagnostics and hope to effectively combat future swine disease epidemics.

Additional Information

About Celemics: Celemics is a Korea-based biomaterial technology leader that has developed a range of innovative biomaterials and sequencing methods for use in the medical, pharmaceutical, microbiome, synthetic biology, and breeding fields. Since its founding in 2010, the company has developed Massively Separated and Sequence Identified Cloning (MSSIC™), a highly efficient massive cloning technology that serves as a foundation technology for Celemics solutions. The company has also developed Barcode-Tagged Sequencing (BTSeq™), a novel sequencing methodology established as a high-quality alternative to Sanger sequencing, and TrueRepertoire™ aimed to help vaccine developers accelerate antibody excavation. Celemics is currently the only NGS-based Target Capture Kits manufacturer in Europe, Asia, and the Middle East.

About the South Dakota State University Veterinary and Biomedical Sciences Department
The South Dakota State University Veterinary and Biomedical Sciences Department provides veterinarians, animal owners, biologics companies (industry), public health departments, wildlife officials, and researchers answers to questions about animal and public health and supporting undergraduate and graduate student learning. Undergraduate students benefit by receiving an educational foundation through hands-on learning that makes them competitive applicants to colleges of veterinary medicine and other biomedical career opportunities. Graduate students sharpen professional development with the help of a wealth of scientists willing to partner with them in research. The South Dakota Animal Disease and Research Diagnostic Laboratory, within the Veterinary and Biomedical Sciences Department on the SDSU campus, serve the state, region, and nation as a go-to source of diagnostic information on everything from livestock to pets to food safety zoonotic issues. Researchers work hard to solve essential problems that hinder animal and human health and well-being. The teachers and pre-veterinary advisors inspire and prepare students for careers in veterinary medicine and biomedical sciences. Outreach functions connect veterinarians and animal owners with the indispensable, non-biased information they need to ensure the health and productivity of food and companion animals.

Celeemics, Inc

Celeemics

mkt_official@celeemics.com

This press release can be viewed online at: <https://www.einpresswire.com/article/545569084>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2021 IPD Group, Inc. All Right Reserved.