SmartGene

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Democratizing Sequencing: SmartGene's Technology Featured in New Application Note by Thermo Fisher Scientific and Applied Biosystems

Zug, Switzerland: 14th October 2020: **SmartGene** announced today that its bioinformatics software services are highlighted in a new Application Note published by Thermo Fisher Scientific entitled ***The 16S Direct workflow: Microbial identification using 16S gene sequencing on the SeqStudio Genetic Analyzer and analysis with the SmartGene web application***. As described in this Application Note, the complementary capabilities of SeqStudio and SmartGene software are intended to broaden the adoption of sequence-based identification of Bacteria in routine microbiology laboratories around the world.

Rapid and accurate identification of infectious, fastidious, or noncultivable bacteria is a major challenge for routine microbiology laboratories. Sequencing of the 16S ribosomal RNA gene has emerged as the gold standard method for taxonomic classification and identification of bacteria to the species level; however, broad implementation of sequencing in routine microbiology laboratories has been hindered by the complexity and expense of the analytical process.

The recently-launched Applied Biosystems™ SeqStudio™ Genetic Analyzer for capillary electrophoresis provides a rapid, low-cost alternative to higher throughput instruments and is ideal for microbiology laboratories needing to sequence individual samples or small batches in an easy manner. The Application Note published by Thermo Fisher describes a novel, fast, and economical 16S gene sequencing workflow ("16S Direct") which is optimized for use on the SeqStudio Genetic Analyzer, with downstream sequence data management and interpretation using SmartGene's proven Bacteria Module for organism identification.

"We are delighted to have our technology featured in the new 16S Direct workflow proposed by Applied Biosystems in this App Note," said Stefan Emler, MD, CEO of SmartGene. "The SmartGene Bacteria web application service is the perfect complement to SeqStudio. The 16S Direct workflow renders sequence-based identification of bacteria feasible and accessible for laboratories which are not yet taking advantage of the power of sequencing in their routine operations. SmartGene enables laboratories to deliver sequence-based identification of micro-organisms efficiently and confidently, while avoiding the complexity and expense of building a bioinformatics team and managing software and servers in-house. The SmartGene Bacteria Module provides our users with constantly updated, proprietary reference databases representing approximately 15,400 bacterial species and, importantly, always reflecting up-to-date taxonomy."

The Application Note is available by sending a request to seqstudio@smartgene.com.

About SmartGene

SmartGene is a bioinformatics application service provider (ASP) delivering secure, integrated, software solutions (SaaS) for the analysis, interpretation, and data management of genetic sequences. Customers worldwide use SmartGene's cloud-based modules for multiple applications, including bacterial and fungal identification, microbiome analysis, strain typing, HIV, HCV, and Influenza genotyping and drug resistance analysis, Coronavirus sequencing, plus molecular epidemiology of viruses and bacteria. SmartGene provides specific applications designed for routine workflows from raw sequencing data (Sanger, NGS) to comprehensive reports. Frequently updated, quality-controlled, reference databases, interpretative algorithms, specifically parameterized bioinformatics tools, and customized, searchable, sequence databases are integrated within SmartGene's solutions. Find out more at www.smartgene.com.