NEWS RELEASE

Bruker Launches Unique LiquidArray® Multiplex PCR Assays

4/22/2022

- New FluoroType® Mycobacteria PCR assay detects the mycobacteria complex and differentiates 32 clinically relevant mycobacteria species from culture, using LiquidArray® multiplex PCR technology*
- New FluoroType® STI PCR assay detects seven major pathogens causing Sexually Transmitted Infections (STIs), using LiquidArray® multiplex PCR technology*
- New MBT Compass HT IVD software provides significantly increased speed for microbial identification on the MALDI Biotyper®*

LISBON, Portugal--(BUSINESS WIRE)-- At the 32nd European Congress of Clinical Microbiology & Infectious Diseases (**www.eccmid.org**), **Bruker** Corporation (Nasdaq: BRKR) announces further advances in its market-leading MALDI Biotyper® (MBT) platform, and launches new multiplex PCR infectious disease assays that are based on its proprietary LiquidArray® technology.

This press release features multimedia. View the full release here:
https://www.businesswire.com/news/home/20220422005065/en/

FluoroCycler® XT (Photo: Business Wire)

Bruker further expands its mycobacteria portfolio with the FluoroType® Mycobacteria PCR assay, launched on the high-precision FluoroCycler® XT thermocycler. FluoroType® Mycobacteria uses powerful LiquidArray®technology to differentiate 31 clinically relevant non-tuberculous mycobacteria and the M. tuberculosis complex from cultures in a single test. This further expands Bruker´s broad portfolio in tuberculosis and mycobacteria, including identification, differentiation and antibiotic resistance testing.

Bruker also leverages its LiquidArray®technology for the FluoroType® STI PCR assay, which detects 9 targets from 7 sexually transmitted pathogens from clinical samples in a single test. This assay provides confident Neisseria

gonorrhoea and Chlamydia trachomatis detection of two independent genes for both species, in a workflow suitable for clinical laboratories. FluoroType® STI is validated on the GenoXtract®extraction system and the Fluorocycler® XT thermocycler.

Mr. Fernando Vazquez, MD/PhD, Head of the Laboratory of Medicine and Head of the Service of Microbiology, Hospital Universitario Central de Asturias, in Oviedo, Spain commented: “Sexually transmitted infections (STI) are a significant healthcare problem that can cause serious complications for affected people. Syndromic testing is advantageous to prevent the spread of STI causing pathogens and to help guide appropriate treatment. Bruker’s FluoroType® STI assay, using LiquidArray®technology, covers seven STI-causing pathogens in a single tube with Chlamydia trachomatis and Neisseria gonorrhoeae each covered by two independent gene targets. Based on the performance in our laboratory, the use of FluoroType® STI to detect sexually transmitted pathogens in the daily routine of a Service of Microbiology is highly recommended.”

Dr. Wolfgang Pusch, President of Bruker Microbiology & Diagnostics, added: “With the launch of two new LiquidArray® assays we continue to introduce disruptive innovation in clinical microbiology and infectious disease testing. LiquidArray® multiplex real-time PCR is a cost-effective, second-generation syndromic panel format for clinical laboratories. FluoroType® STI brings broad coverage of LiquidArray® technology to STI testing. FluoroType® Mycobacteria expands our WHO-endorsed mycobacteria portfolio and demonstrates impressive LiquidArray® multiplexing. Both assays provide a broad set of results from a single tube for greater clinical confidence."

The MALDI Biotyper sirius®IVD system supports workflows for rapid, nearly universal and cost-effective microbial identification by proteomic fingerprinting from culture plates, as well as from positive blood cultures. New MBT Compass® HT IVD software provides even higher sample throughput for the MALDI Biotyper as the fastest MALDI system for microbial identification with system time-to-result of ~5 minutes for 96 samples spots, also enabling multi-instrument support. High-throughput labs can now identify up to 600 samples/hour/instrument.

IVD-CE labelled MALDI Biotyper Reference Libraries have been enhanced further, as the standard MBT IVD Library has been expanded by 393 new species and now covers 4,194 species. It can be complemented by the MBT Mycobacteria IVD Module covering 182 Mycobacterium species, and the MBT IVD Library Extension coveringfive highly pathogenic species. Altogether, the IVDMALDI Biotyper®provides nearly universal identification capabilities for 4,381 species, consisting of more than 12,000 very high-quality and carefully curated reference entries.

* Not for sale in the United States of America

About Bruker's Proprietary LiquidArray® Technology

The innovative LiquidArray®technology optimizes asymmetrical multiplex PCR for creating excess single-stranded amplicons with detection by Lights-On/-Off probes that contain a quencher (Lights-Off) or both fluorophore and quencher (Lights-On). If both probes are hybridized in proximity on the amplicon, the quencher of the Lights-Off probe eliminates the fluorescence emitted by the Lights-On probe. During melting curve analysis, Lights-On/-Off probes detach from the amplicon at specific temperatures. In the unbound state, Lights-On probes cannot emit, and as fluorescence is either emitted or suppressed, specific fluorescence signatures are generated by the unique FluoroCycler® XT thermocycler for the LiquidArray® multiplex PCR technology. The LiquidArray® technology supports multiplexed assays where a large number of targets is analyzed simultaneously from single samples. For example, the LiquidArray®-powered, WHO-endorsed FluoroType® MTDBR VER 2.0 assay detects more than 500 genotypes by the combined analysis of up to 45 different mutations in mycobacteria.

About the Bruker MALDI Biotyper® (MBT) Platform

The MALDI Biotyper® enables molecular identification of bacteria, yeasts and fungi. Classification and identification of microorganisms is achieved reliably and quickly using proteomic fingerprinting by high-throughput MALDI-TOF mass spectrometry. The MALDI Biotyper® uses a molecular approach based on specific proteomic fingerprints from bacterial strains. Many published studies have highlighted the greater accuracy and lower cost, as well as the typically much faster time-to-result (TTR).

Applications of various MALDI Biotyper® solutions include clinical routine microbial identification, environmental and pharmaceutical analysis, taxonomical research, food and consumer product safety and quality control, as well as marine microbiology. In many European and international laboratories, the MALDI Biotyper® has replaced classical biochemical testing for bacterial identification in the past decade due to the accuracy, speed, extensive species coverage, ease of use and cost effectiveness of the system. Traditional biochemical techniques detect different metabolic properties of microorganisms, can take many hours or even days for completion, and they often lack specificity.

The robust MALDI Biotyper® requires minimal sample preparation and offers low consumables cost. The products of the MALDI Biotyper® family are available in a research-use-only (RUO) version, as the U.S. FDA-cleared MALDI Biotyper® CA System, or in an IVD-CE version. The MALDI Biotyper® also has medical device registrations in numerous other countries.

The MALDI Biotyper® software allows selected, high-value antimicrobial resistance tests. The CE-IVD MBTSTAR®-

Cepha Kit now allows rapid, functionalantibiotic resistance testing against Cephalosporins, and the CE-IVD MBT STAR®-Carba Kit is for fast Carbapenem-resistance testing.

About Bruker Corporation (Nasdaq: BRKR)

Bruker is enabling scientists to make breakthrough discoveries and develop new applications that improve the quality of human life. Bruker's high performance scientific instruments and high value analytical and diagnostic solutions enable scientists to explore life and materials at molecular, cellular and microscopic levels. In close cooperation with our customers, Bruker is enabling innovation, improved productivity and customer success in life science molecular and cell biology research, in applied and pharma applications, in microscopy and nanoanalysis, as well as in industrial applications. Bruker offers differentiated, high-value life science and diagnostics systems and solutions in preclinical imaging, clinical phenomics research, proteomics and multiomics, spatial and single-cell biology, functional structural and condensate biology, as well as in clinical microbiology and molecular diagnostics. For more information, please visit: **www.bruker.com**.

View source version on **businesswire.com**: **https://www.businesswire.com/news/home/20220422005065/en/**

Investor Contact:

Justin Ward
Senior Director Investor Relations and Corporate Development
T: +1 (978) 663–3660, ext. 1479
E: **investor.relations@bruker.com**

Contact for Media and Customers:

Philip Perry
Bruker Microbiology & Diagnostics
T: +49-172-313-7216
E: **Philip.Perry@bruker.com**

Source: Bruker Corporation