Bruker Launches solariX™ FTMS Based MALDI System at ASMS Conference

The New solariX FTMS Based MALDI System is a Uniquely Powerful Platform for Addressing Molecular Imaging of Small Molecules in Tissue Samples.

SALT LAKE CITY, Utah – May 23rd, 2010 – At the 58th ASMS Conference, Bruker today announces a novel MALDI molecular imaging system based on the extreme performance of the ***solariX*** FTMS. The new MALDI-***solariX*** combines the extreme analytical performance of the ***solariX*** FTMS (resolving power > 1,000,000 at m/z 400 at 7.0 tesla field strength) with a robust and highly sensitive MALDI source to provide an unrivalled platform for high performance molecular imaging of small molecules (e.g. drug, metabolites, lipids) in tissue.

The new ***solariX*** MALDI source is based on a dual ion funnel design that includes the combination of MALDI **and** ESI. This unique source is capable of immediate and effortless switching between the two ionization methods. The combination of MALDI with the ***solariX*** FTMS addresses a need in the pharmaceutical industry and in academic research institutions for a high performance imaging solution targeted specifically to the tissue distribution of small molecule drugs and metabolites, endogenous metabolic spatial profiling, and lipid imaging.

The ***solariX*** MALDI system incorporates the innovative, proprietary ***smartbeam™ II*** laser which includes a robust solid state 1 kHz laser with advanced optics for molecular imaging, for:

- Ultra-high mass resolution high-sensitivity small molecule MALDI-MS imaging, without a loss in sensitivity due to MS/MS for selectivity
- Sensitivity necessary to detect drugs and metabolites at therapeutic dosages
- Fast data acquisition of up to 1 pixel/sec with 1 kHz laser speed
- Laser spot sizes down to 20 um allowing high spatial resolution
- Instantaneous source switching allowing trouble free changeover from ESI to MALDI
- Highly effective workflow including MALDI imaging sample preparation with the Bruker ***ImagePrep™*** station and data acquisition / image processing with ***FlexImaging™*** software

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- First commercially available software solution for small molecule statistical class imaging utilizing ***ClinProTools™***

By combining molecular imaging with FTMS detection, researchers can utilize ultra-high mass resolving power to separate and analyze molecules of closely related masses in a truly multiplexed approach – observing all molecular species simultaneously. This provides selectivity without compromising sensitivity. Additionally, industry-leading high mass accuracy (< 1 ppm) provides the requisite specificity for elucidating molecular species without the need for time consuming MS/MS. Complete, simultaneous, label-free mapping of drugs and metabolites in tissue can now be conveyed from single MALDI imaging runs at therapeutic dosing levels. For complete confidence in molecular assignment of detected masses, Bruker's SmartFormula™ software can be used as part of the small molecule imaging workflow for assigning unambiguous elemental formula to detected peaks.

David Wagner, Section Manager of the DMPK group for GlaxoSmithKline, remarked: "We are very excited to be adding this state-of-the-art capability to the analytical analysis portfolio of our group. This instrument will serve as the primary high-performance molecular imaging solution for GSK's development efforts, and will provide unprecedented power for the spatial analysis of target metabolites."

Full automation allows researchers to acquire data in a completely unattended fashion and the unprecedented ease-of-use offered by the solariX FTMS means MALDI data acquisition and imaging workflows require minimal operator effort.

The solariX™ FTMS Based MALDI System will be highlighted at Bruker's Users Meeting on Sunday, May 23rd, 2010 before the 58th ASMS Conference on Mass Spectrometry in Salt Lake City, Utah (USA). For more information on Bruker's User Meeting and other ASMS activities, please visit www.bdal.com/asms2010.

For More Information:

For more information on solariX™ FTMS Based MALDI System, please visit www.bdal.com/solariX
For information about Bruker Daltonics and Bruker Corporation (NASDAQ: BRKR), please visit www.bruker.com

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