

New Products

Mass spectrometry



Product: Two instruments for hybrid mass spectrometry.

Name & Manufacturer: LTQ Orbitrap Discovery and LTQ Orbitrap XL from Thermo Fisher Scientific.

Technology: The LTQ Orbitrap Discovery provides accessibility to the LTQ Orbitrap technology and up to 30K resolution power. The LC-MS system separates trace level, isobaric analytes with an exceptional scan rate. It achieves high throughput label-free profiling for differential expression and its MSⁿ capability enables you to characterize small molecules and elucidate structures. Based on the LTQ Orbitrap platform, the LTQ Orbitrap XL provides unrivalled performance and flexibility. It features the HCD octapole collision cell for flexibility in MS/MS fragmentation applications including iTRAQ-based peptide quantitation, PTM analysis, de novo sequencing and metabolomics research. This platform is also compatible with, and upgradeable to use the Electron Transfer Dissociation (ETD) option for controlled dissociation of peptides and proteins.

Advantages: The LTQ Orbitrap Discovery is suited for general proteomics and metabolism applications, offering an alternative to Q-TOF systems. The LTQ Orbitrap XL is a protein identification and biomarker discovery platform featuring unsurpassed sensitivity in MS and MSⁿ, rapid scan rate, high mass accuracy and up to 100K resolution power.

More Information: +1 800-532-4752, analyze@thermofisher.com or www.thermo.com/orbitrap

Extracellular Recording



Product: Biological Amplifier for Extracellular Neural Recordings.

Name & Manufacturer: Neuro Amp EX from ADInstruments.

Technology: The Neuro Amp EX is a low noise and high gain device, suitable for all recording environments requiring a wide bandpass (100 Hz – 5 kHz) and high signal to noise ratio. It is supplied with a slimline, shielded, high impedance headstage. Due to the noise associated with metal microelectrodes and the high-gain required for recording nerve signals, the headstage provides preamplification gain of 100x and a 10 Hz filter. The product is safe for human and animal research as the headstage and amplifier are fully isolated from the mains circuitry.

Advantages: The Neuro Amp EX has ultra-low noise and an exceptional signal to noise ratio. It is extremely adaptable, as it may be used for a range of both human and animal recordings. The software-controlled amplifier seamlessly integrates with PowerLab Data Acquisition Systems and Chart software.

More Information: www.adinstruments.com/neuro-amp or info.de@adinstruments.com

Horizontal Gel Electrophoresis

Product: Horizontal gel electrophoresis apparatus.

Name & Manufacturer: Compact family from Whatman Biometra.

Technology: The design and the use of high-grade components as platinum electrodes and corrosion-free safety plugs provide for reliable convenience in application. There are three different chamber sizes supporting five different gel sizes from mini up to maxi large gels. A wide choice of preparative, analytical and multi-channel pipet compatible combs is available. Gel casting works exceeding easily: Small to middle



gels are casted in unique casting tanks. Quick and leak proof pouring of large gels is performed in a multi-purpose gel caster with 3-point leveling.

Advantages: The new electrophoresis line is consistently developed to the requirements of scientific research and routine laboratories.

More Information: www.biometra.com

Cell Culture I



Product: Platform for cell growth quantification in well plate formats.

Name & Manufacturer: CELLAVISTA from INNOVATIS.

Technology: CELLAVISTA takes care of all steps required for image based analysis. Image acquisition, image analysis and data interpretation are fully automated. The fast image acquisition module is capable to scan the total area of 15 well plates in less than one hour. Together with the new laser based autofocus system this guarantees high throughput with high content quality. The graphical user interface allows you to set up experiments quickly. The results can be interpreted by choosing the most descriptive presentation for the assay at hand. The instruments' library offers whole plate overviews, image time series, histograms, scatter plots, heat maps or time charts.

Advantages: With its combined bright field and fluorescence capabilities CELLAVISTA opens the door for quantitative analysis of a broad range of cellular applications. CELLAVISTA is designed to improve efficiency and standardize cellular assays, e.g. in cell line development, cellular research or drug discovery.

More Information: www.innovatis.com

Cell Culture II



Product: “hands-free” approach to cells in culture.

Name & Manufacturer: BioStation CT from Nikon.

Technology: By combining the environmental control capabilities of a high-performance CO₂ incubator with the optics needed for drift-free, live-cell imaging, the BioStation CT removes the need for culture dishes to be transported from one location to another for observation. Cultures can be imaged at both the macro and the micro level, from 2x to 40x magnification (CT) or 10x to 80 (IM) under phase contrast, using lenses that provide the highest possible contrast with the least amount of ‘halo’. It is also possible to observe cells under epi-fluorescence illumination. As standard, the BioStation CT has the capability of handling culture flasks, dishes and well plates. When the cells need to be observed, vessels are automatically retrieved from the storage area and transferred to the integral microscope stage. This transfer is vibration-free.

Advantages: Constantly maintaining an optimum environment does improve the consistency of cell growth and reduce the variability of experimental data. In stem cell research even subtle variations can induce epigenetic changes in the karyotype. Furthermore, the hands-off approach reduces the scope for contamination.

More Information:

info@nikoninstruments.eu
or www.nikoninstruments.eu

Protein Crystallography



Product: Software package for protein crystallography.

Name & Manufacturer: CrysScreen software package from Tecan.

Technology: The CrysScreen version 2.0 runs under Tecan’s Freedom EVOware Standard software, ensuring simple and efficient process control of automated hanging drop, sitting drop and microbatch protein crystallography experiments using the Freedom EVO liquid handling workstations. It contains a number of improvements, including a data export function.

Advantages: The CrysScreen package provides easy management of protein crystallography trials, including screening definitions, custom buffer creation, design of experimental conditions, execution of experiments, data management, analysis of results and the definition of follow-up experiments. An intuitive user interface completes the package.

More Information:

www.tecan.com and info@tecan.com

Comparative Hybridization

Product: Kit for Oligo CGH Microarrays.

Name & Manufacturer: FFPE Kit from Agilent Technologies.

Technology: These labeling kits enable for the first time oligo microarray comparative genomic hybridization (CGH) analysis of DNA from formalin-fixed paraffin-embedded (FFPE) tissue samples. The method is based on Kretech’s Universal Linkage System technology, a non-enzymatic direct labeling methodology that has been optimized for Agilent oligo CGH microarrays. Enzymatic labeling can introduce bias while further reducing DNA fragment size. This new labeling technology also features a simple, single-tube protocol, enabling a reduced cost per experiment.

Advantages: This method addresses an unmet



need of clinical researchers. There are an estimated 400 million FFPE-preserved samples in tissue banks worldwide, and the DNA in these samples has been considered too degraded to use in microarray analysis techniques such as CGH.

More Information:

www.opengénomics.com

Genotyping service



Product: Genotyping service provider program.

Name & Manufacturer: SNPlex from Applied Biosystems.

Technology: Applied Biosystems has established a global genotyping service provider programme for scientists interested in the study of how specific genetic variations may impact health or disease. The SNPlex Service Provider Program was created for research laboratories that do not have access to capillary electrophoresis (CE) genetic analysis instrument systems. The programme aims to provide these researchers with a comprehensive service for genotyping research through its participants, which include the Chinese National Human Genome Center (China); DNAvision (Belgium); IntegraGen, Inc. (France); Medical Solutions Geneservice (UK); the University of California at Los Angeles DNA Sequencing and Genotyping Core Facility (USA); and Vanderbilt University DNA Sequencing and Genotyping Facility (USA).

Advantages: The programme will allow researchers to study areas of genetic interest in large populations of individuals.

More Information:

abdirect@eur.appliedbiosystems.com.
or http://europe.appliedbiosystems.com