

Genomics & proteomics



Confocal microscopy

The Radiance2100 laser-scanning microscopes from ProteomeWorks are upgradable from single-channel confocal to multichannel, femtosecond-pulsed infrared laser multi-photon systems, and come with a wide choice of laser line options. The single-channel system's features include high sensitivity, optimum image resolution and intensity control, and a range of scan modes, including region of interest, fast bidirectional scanning, and lambda strobing. Digital mixers enable live fluorescence bleed-through correction. The multi-photon system features long-wavelength IR excitation allowing imaging deep into highly scattering samples and lower phototoxicity than visible laser excitation, ideal for live samples. <http://www.proteomeworkssystem.com>



Chip set

Affymetrix's GeneChip Human Genome U133 Set is the first commercial array set to use the publicly available draft of the human genome, allowing researchers to access the most comprehensive and up-to-date version of the human genome sequence currently available on a microarray platform. More than 500,000 unique features on each chip allows users to make multiple, independent measurements of gene activity, helping to ensure accurate assessment of gene expres-

sion levels. In addition, Microarray Analysis Suite 5.0 software incorporates a new analysis algorithm based on common statistical methods, featuring new outputs, such as p-values, that make the results easier to interpret and more accurate. <http://www.affymetrix.com>

Live cell imaging

The UltraVIEW Live Cell Imager (LCI) from PerkinElmer Life Sciences is a high-resolution confocal microscopy tool that provides fast three-dimensional images of living cells. UltraVIEW LCI's microlens technology, coupled with green fluorescent protein-labeled proteins, captures real-time images of the complex pathways of cell biology that are critical to functional proteomics studies. An improved version of the UltraVIEW LCI is now available with a faster camera that features higher sensitivity for increased speed and better resolution. It also incorporates Improvion's Volocity 3D software imaging package. <http://www.perkinelmer.com/lifesciences>



Microgenomics system

Arcturus' integrated System for Microgenomics uses homogeneous in situ cell populations for studying cell-specific gene expression, producing more accurate data than can be obtained by studying whole tissue samples. The system features two key technologies: laser capture microdissection (LCM) and RNA amplification. The complete system includes the PixCell II LCM System, the HistoGene LCM Slide Preparation Kit, PicoPure RNA Isolation Kit, and the RiboAmp RNA Amplification Kit. These tools enable researchers to obtain and amplify enough intact mRNA from a single microdissection to probe multiple microarrays. All elements have been optimized and experimentally validated for studying gene expression in small, pure cell populations. <http://www.arctur.com>

Liquid handling



Electronic pipettor

With the 16-channel Impact electronic pipettor from Matrix Technologies, users can transfer one entire row of a 384-well plate at once. Available with Impact or Impact2 software, the pipettor comes in three different volume ranges and is powered by an advanced, long-lasting lithium-rechargeable battery. <http://www.matrixtechcorp.com>



Ergonomic pipettor

VistaLab Technologies' Ovation BioNatural pipette targets the ailments reported by many laboratory workers who use axial-designed, traditional pipettes: pain in the arm, shoulder, wrist, and neck caused by repetitive motions and awkward posture. The Ovation's shape conforms effortlessly to the user's palm, and allows the task of pipetting to be performed with a natural posture and minimal muscular movement. During use, the lower hand location eases stress in the shoulder, and relaxing the wrist angle eliminates uncomfortable extension and radial deviation movements in the arm. Force, velocity, and exertion from repetition and duration have also been neutralized. <http://www.vistalab.com>