

New Products

**In Vivo Imaging System**

The Kodak In-Vivo Imaging System FX Pro is designed for advanced multi-wavelength fluorescent, luminescent, radioisotopic, and X-ray imaging in life science research and drug discovery applications. New features include a state-of-the-art precision automated lens, selectable wavelength excitation and emission filter systems, and the capability of switching remotely among optical, radioisotopic, and X-ray imaging modes without disturbing the samples or opening the imaging chamber. The system is capable of precisely recalling and replicating all imaging settings from session to session for both in vivo and in vitro molecular imaging applications. The precision automated lens system records the precise f-stop, 10X zoom, and focal plane parameters of each session, enabling reproducibility and traceability without time-consuming manual steps. The versatile system can image a wide variety of samples from small animals to gels, plates, and tissues.

Carestream Health

For information 877-747-4357
www.kodak.com/go/molecular

Living Cell Research

The PALM DuplexDish 35 culture dishes, PALM DishHolder 35 with CapCheck, and PALM DishHolder 6/35 are accessories for the PALM MicroBeam system, a laser microdissection system capable of simultaneous visualization and microdissection under multichannel fluorescence illumination and extended focus. The accessories are designed to open the door to more flexible experiments in the isolation and micromanipulation of living cells. The DuplexDish 35 is a 35-mm diameter culture dish in which cells can be isolated, collected, and further cultivated with no need for an additional trypsinization step. The small diameter of the dish lessens reagent requirements. The base offers optimal gas exchange and exhibits low autofluorescence. For processing under the microscope, the culture dish is inserted in a holder on the microscope stage. An integrated aperture can be used to check the success of the specimen isolation. With the CapCheck function, after the microdissection is completed, the specimen can be examined in the cap without any need to remove the dish from the holder. The DishHolder 6/35 can accommodate up to six DuplexDish 35 culture dishes. It can be inserted in the microscope, but also can be used for preparation under the clean bench.

Zeiss

For information 914-681-7627
www.zeiss.com/micro-press

Transporter Uptake Assay Kit

The live cell Neurotransmitter Transporter Uptake Assay Kit offers researchers a single tool to screen for live cell kinetic uptake of the three key neurotransmitters—dopamine, norepinephrine, and serotonin—in a homogeneous, fluorescence-based, high throughput screening procedure that eliminates the use of radioactive tags or labels. The kit improves on current procedures that make use of radiolabeled neurotransmitter or transporter inhibitors, both of which require specialized instrumentation, detect only the assay endpoints, and are encumbered by the disposal of radioactive materials. This assay can be used in both kinetic and endpoint modes and is a simple, mix-and-read protocol performed in 96-well or 384-well microplates. Applications include high throughput screening and lead optimization. Neurotransmitter targets have become important pharmaceutical targets because of their key role in depression and neurodegenerative diseases.

Molecular Devices

For information 408-548-6013
www.moleculardevices.com

Controlled Light Exposure Microscopy

Time-lapse studies of protein interactions can be undertaken without fear of cell degradation, death, or bleaching in Nikon confocal systems configured with controlled light exposure microscopy (CLEM). The prolonged cell viability that the system allows provides a new level of

ability to observe dynamic events in living cells. Observation of cellular targets labeled with a fluorescent peptide can be captured with a dramatic reduction in damaging excitation light, reduced photobleaching, and enhanced cell survival. In contrast to conventional confocal microscopy, when CLEM is deployed, cellular exposure to laser light is determined on a per-pixel basis and excitation light is reduced through two unique strategies. The first of these ensures that if there is no signal, the illumination is switched off. The second detects whether there is sufficient signal to acquire an image, and illumination can be stopped on this basis. Experimental imaging results indicate that under the standard operating conditions of point scanning laser-based confocal microscopes, the CLEM system can extend the imaging time of living cells by a factor of two.

Nikon

For information +44 (0) 207 861 3019
www.nikon-instruments.com

Cell Signaling Reagents

Two additions to a line of cell signal transduction reagents—Phospho-MAPKAPK-2 and Phospho-STAT3 kinase antibodies—are valuable for cell function research. These single-color flow cytometric reagents measure kinase activation in the cytoplasm. By measuring the phosphorylation of specific intracellular proteins, these reagents can aid in the study of surface-to-nucleus cell signal transduction pathways. The Phospho-MAPKAPK2 marker is particularly useful in the study of pro-inflammatory mediator release, actin reorganization, and cell invasion mechanisms. The Phospho-STAT3 marker that translocates to the cell nucleus upon activation plays a key role in many cellular processes such as cell growth and apoptosis. Flow cytometry is a unique tool for clinical research because it can quantitate activated signal transduction proteins within individual cells.

Beckman Coulter

For information 714-993-8955
www.beckmancoulter.com

Filter Sets for Fluorescent Proteins

Fifteen new filter sets for fluorescent proteins are now available, including filter sets for Invitrogen's Vivid colors, Clontech's Living Colors, and MBL's Coral Hues. Because live cell experiments are typically light starved, optimized filter sets must deliver high signal-to-noise ratio. These filter sets are manufactured using proprietary technology that produces steep slopes and accurate band placement, for maximizing excitation and emission energy and for minimizing background. With the addition of these new sets, Omega now has optimized sets for a total of 35 proteins, including new sets from the reef coral *Anthozoa* and the jellyfish *Aequoria victoria*.

Omega Optical

For information 802-254-2690
www.omegafilters.com