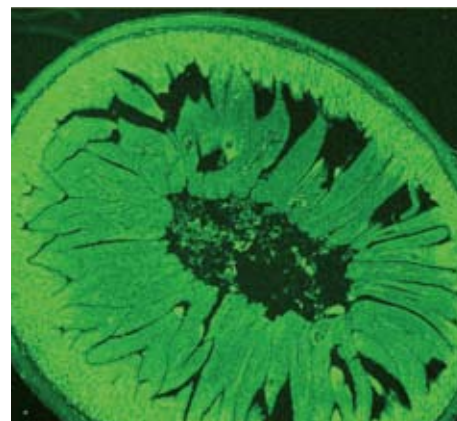




« Cellavista by innovatis

» A tissue scan from TTP LabTech's Acumen eX3



## Glow Green

### *New tools in fluorescence*

The advent of fluorescence imaging technology was a lot like flipping on a switch because we can now see specific parts of cells and tissues. Take a look at the new products below to see how far this technology has come.

**Cellavista**, from **innovatis**, is a fast and flexible, automated image-based platform for visualizing, analyzing, and documenting cell growth in a broad range of cellular assays. Combining brightfield and innovative fluorescence optic capabilities enables compatibility with a wide array of cellular assays including but not limited to single cell cloning, cell confluence, suspension cell count, FACS seeding efficiency control, cell nuclei count and characterization, transfection efficiency, microplate quality control, viral plaque assays, fluorescent protein expression, and apoptosis assays. Integrated automation with robotic plate loaders and automated incubators enables smooth operation 24 hours a day. Five minutes is all it takes to complete a 96-well microplate scan, with simultaneous image acquisition and analysis. Assay-specific analysis algorithms have been fully developed to identify cell clusters or colonies and are applicable to stem cell research. Automated image stitching capabilities enable complete whole-well analysis as one image. Gating capabilities give the user the power to select specific objects and colonies of interest. **More information:** [www.innovatis.com](http://www.innovatis.com)

**Syngene**, a world-leading manufacturer of image analysis solutions, introduces the latest version of the **G:BOX Chemi XT16** automated chemiluminescence and fluorescence imaging and analysis system, featuring

many innovations. Inside a newly designed light-tight darkroom, the G:BOX Chemi XT16 has the latest 16 bit camera with a new f 0.95 variable aperture lens, making it possible to quickly and easily produce accurate images of large gels and blots. To save time, the G:BOX Chemi XT16 also has PC control of its motor driven stage which allows the system to memorize and feed back set positions for specific applications. The camera, with highly sensitive 6.3 effective mega pixel resolution, is ultra cooled to guarantee the G:BOX Chemi XT16 will separate close band and spot images with virtually no background noise, even when imaging chemiluminescence blots for long exposure times. **More information:** [www.syngene.com](http://www.syngene.com)

**Thermo Scientific** introduces the new **Multiskan FC microplate photometer**. The Multiskan FC combines 30 years of experience with new features for enhanced usability. The new system combines the renowned reliability of the Multiskan range with a new large color screen, "quick keys" and multiple language options to ensure excellent usability. The Multiskan FC is a reliable and robust microplate photometer for scientists, lab technicians, students and other laboratory personnel performing a wide variety of routine and basic research applications. Designed to process both 96- and 384-well microplates, the Multiskan FC can be controlled as a stand-alone instrument or via the Thermo Scientific

Skant Software, in a number of different languages. The Multiskan FC has a comprehensive range of built-in and optional quality, verification and self-diagnostic tools. The proven and patented optical design, together with built-in self-diagnostics tools and auto-calibration feature, guarantee proven day-to-day performance. **More information:** [www.thermo.com](http://www.thermo.com)

**TTP LabTech's Acumen eX3** is well suited to scanning tissue sections mounted on microscope slides due to its large field of view (400mm<sup>2</sup>), which enables the rapid collection of multi-colored fluorescence data from whole sections of tissue at a time without the need to stitch together multiple images. In cytometry mode, Acumen eX3 rapidly scans, analyzes and reports high content information yielding very small post-scan file sizes (> 50kB). For more detailed evaluations, TIFF files can be exported and analyzed in batch mode using third-party image processing software. Cytometry mode may be used to rapidly determine regions of interest within larger sections for visual scoring. Validation data comparing the use of cytometric versus image analysis of exported TIFF files (using third party software) for the determination of mitotic index in tumor sections, has shown that cytometric analysis by Acumen software generated comparable results to those gained by image analysis of un-thresholded TIFF images using



« The G:BOX Chemi XT16, from Syngene

» The Multiskan FC, from Thermo Scientific



third party software. **More information:** [www.ttplabtech.com](http://www.ttplabtech.com)

Carl Zeiss introduces the **PALM MicroBeam laser microdissection system**, the only instrument capable of simultaneous visualization and microdissection under multichannel fluorescence illumination and extended focus. Built upon the Zeiss Axio Observer research grade inverted microscope, the PALM MicroBeam employs PALM's exclusive LPC (laser pressure catapulting) technology for contamination-free specimen acquisition. The PALM RoboSoftware may be used to generate single or multichannel images for up to five different wavelengths while the Axio Observer's high performance filters enable up to 70% higher excitation intensities and allow the use of phase contrast and differential interference contrast (DIC) illumination. Higher excitation intensity also allows the PALM MicroBeam to reduce exposure times by up to 50%, to protect for fragile living cells. **More information:** [www.zeiss.com](http://www.zeiss.com)

Glen Spectra introduces the **PR-680 SpectraDuo** from **Photo Research**, the first and only combined array detector spectroradiometer and PMT based photometer on the market. It can be used either as a spectroradiometer or as a highly sensitive photometer. The unique design of the PR-680 makes tasks such as spectrally based colorimetry and high speed, low level luminance - required for display metrology - possible with a single instrument by supplying a wide dynamic range - 0.003cd/m<sup>2</sup> (photometer and 1° aperture) to 2,200,000cd/m<sup>2</sup> (spectral and 1/8° aperture) without using exter-

nal neutral density filters. **More information:** [www.glenspectra.com](http://www.glenspectra.com)

Genetix, with the acquisition of Applied Imaging, announces **Ariol**, a high throughput automated image analysis system for the quantification of biomarkers on microscope slides in research, clinical, pharmaceutical, genomic, and proteomic applications. Capable of both brightfield and fluorescent imaging, it rapidly scans and quantitates IHC, FISH, immunofluorescence, micrometastasis, angiogenesis, DNA Ploidy, and tissue microarray slides. Ariol is FDA cleared for *in vitro* diagnostic use of HER-2/neu, ER, and PR IHC, PathVysion and the detection of micrometastases in bone marrow. **More information:** [www.genetix.com](http://www.genetix.com)

The **Coolscope II**, from **Nikon**, has added functions such as faster frame rate and USB functionality compared to the original. The Coolscope II is an all-in-one box package incorporating a microscope and digital camera with web server capabilities. As with the original, the upgraded model can be operated via the Ergo Controller that provides an operational feel similar to that of an actual microscope. The upgraded system offers both improved macro image illumination as well as a faster display update. The enhanced color rendition ensures that more naturally colored microscopic images are created, and the revolutionary 'fly-eye' lens array provides consistent illumination across the entire field of view. **More information:** [www.nikoninstruments.com](http://www.nikoninstruments.com)

The **FluoLED** product range, from **Olympus**, is designed to fit to Olympus CX microscopes and has the ability to power the LEDs by battery or even solar power ensuring that fluorescence microscopy can be

conducted 'in field' where samples are fresh. The FluoLED system is available in three versions, all of which attach directly to the microscope to provide transmitted fluorescence, without removing the ability to perform normal brightfield illumination: The FluoLED EasyBlue (480nm) provides a single wavelength and the capability to use one of seven interchangeable LED cassettes from 365nm (UV) to 630nm (Red). The FluoLED MultiFluo enables up to three of the interchangeable LED cassettes to be installed and controlled on the microscope at once via a three channel electronic driver. **More information:** [www.olympus-europa.com](http://www.olympus-europa.com) ■

Companies Mentioned in this Product Spotlight:

Carl Zeiss - [www.zeiss.com](http://www.zeiss.com)

Genetix - [www.genetix.com](http://www.genetix.com)

Glen Spectra - [www.glenspectra.com](http://www.glenspectra.com)

innovatis - [www.innovatis.com](http://www.innovatis.com)

Nikon - [www.nikoninstruments.com](http://www.nikoninstruments.com)

Olympus - [www.olympus-europa.com](http://www.olympus-europa.com)

Syngene - [www.syngene.com](http://www.syngene.com)

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