**3-D SUPERRESOLUTION MICROSCOPY**

With a new module, ELYRA P.1 now enables superresolution photoactivated localization microscopy (PALM) in 3-D for endogenously expressed photo-switchable fluorescent proteins. Users can capture highly resolved structures in 3-D, while treating the sample so gently it stays fit for long-term observation. In PALM, photo-switchable fluorescent molecules are sparsely activated so that only one out of many will be in its on-state within a single point spread function (PSF). In 3-D, the PSF shape codes for the z-position. The localizations are plotted in a new image to create the superresolved image. ELYRA P.1 achieves resolutions in the range of 20–30 nm laterally and 50–80 nm axially. With ELYRA, researchers can investigate the structural arrangement of one or multiple proteins and reveal the ultrastructure of cell organelles in 2-D and 3-D as well as map and count molecules within a structure. Sophisticated algorithms relate photon statistics to precision information in all directions, so researchers can display their structures fully rendered in 3-D.

**Carl Zeiss**

For info: +49-36-4164-3949 | www.zeiss.de

**CELL CULTURE MEDIUM**

Live-cell fluorescence microscopy is an essential technique for the visualization of fundamentally important and physiologically relevant biological events. A key challenge with this technique is the ability to image weak fluorophors without causing cell damage, photobleaching, or undesirable changes to cell health. Gibco has addressed this problem by developing FluoroBrite DMEM, a media formulation with background fluorescence that is comparable to PBS and 90% lower than that emitted by standard phenol red-free DMEM. The medium is formulated to include the required nutrients for routine cell culture when supplemented with 10% fetal bovine serum and 4 mM L-glutamine or GlutaMAX. FluoroBrite DMEM is designed to enhance the signal-to-noise ratio of fluorophors so that researchers can visualize even the weakest fluorescent events in an environment that promotes optimum cell health.

**Life Technologies**

For info: 800-955-6288 | www.lifetechnologies.com/fluorobrite

**AUTOMATED PERFUSION SYSTEM**

The Dynaflow Resolve automated perfusion system uses microfluidics for rapid and efficient solution exchange experiments, enabling the measurement of ion channel current regardless of cell type or compound. The new Temperature Control add-on module has been specifically developed to enable high-performance patch clamp experiments at physiological temperatures, from room temperature up to 45°C. Temperature control during ion channel research is particularly important when investigating ion channel kinetics and toxicity screening applications, and now Cellectricon’s Dynaflow Resolve Temperature Control ensures patch clamp experiments can be performed with unsurpassed speed, control, and flexibility at these elevated temperatures for true physiological insight. Developed in response to customer demand, the Dynaflow Resolve Temperature Control guarantees precise, definable temperature control, and complete stability, even for hour-long experiments. Without any risk of temperature fluctuations following solution switch, scientists can be assured of reliable, reproducible results in constant physiological conditions.

**Cellectricon**

For info: +46-(0)-31-760-35-00 | www.cellectricon.com

**SEROLOGICAL PIPETTOR**

The new PIPETBOY acu 2 serological pipettor is equipped with the latest technology providing a significant increase in pipetting speed and a sizeable weight reduction, making use of the instrument over extended periods of time even more comfortable. These two new developments help improve your productivity and deliver an enhanced ergonomic pipetting experience. The PIPETBOY acu 2 serological pipettor combines all essential characteristics for productive work with pipettes: precision, speed, ease-of-use, comfort, long operating battery life, and reliability. PIPETBOY acu 2 is designed for use with all commercially available glass and plastic serological pipettes in the volume range 1–100 µL. Pipetting using PIPETBOY acu 2 is controlled by two operating buttons and an adjustment wheel for setting the pipetting speed. Precise drop-by-drop dispensing is easily achieved by applying a slight pressure on the operating button. PIPETBOY acu 2 is available in a range of six attractive colors.

**Integra Biosciences**

For info: +41-(0)-81-286-95-30 | www.integra-biosciences.com

**BARCODE READER**

The Tracxer Code Reader RD235 CRYO offers a high-end solution for scanning whole racks with 2-D Data-Matrix or TraXis coded tubes. Featuring a CCD image sensor the new reader provides unmatched high-resolution image quality, ensuring the highest accuracy 2-D code reading. The Tracxer Code Reader RD235 CRYO features an anti-frost system which minimizes condensation on the scanner plate. This way, tube codes from even frozen samples can be read, thereby improving productivity and preserving the integrity of your samples. Just a couple of mouse clicks using the highly intuitive Tracxer Code Reader software allows you to scan a complete rack of 2-D coded tubes in seven seconds and a single tube in less than two seconds. Using the Tracxer Code Reader RD235 CRYO in conjunction with a Tracxer 1D Rack Barcode Reader BC235 accessory the software allows you to read the 1-D rack barcodes and 2-D tube codes together.

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