

## NEW AND INTERESTING AT ASCB 2006

*The following exhibitors at the recent ASCB-2006 meeting provided these short summaries of what they considered new and/or interesting at their booths on this year's equipment floor.*

The **PersonalDV** and the **DeltaVision Core** are the next generation in the DeltaVision family of restoration microscopy imaging systems from **Applied Precision**. The PersonalDV combines high content data acquisition and image restoration software in a compact, ergonomic system designed for budget-conscious labs. The DeltaVision Core is powerful enough to equip a world-class imaging facility yet suitable for individual labs performing ultra-high content experimentation. Both systems include features such as cell tracking, auto focus, point-visiting and time-lapse data acquisition making them ideal for live-cell imaging. In addition, both models use a xenon arc lamp, which has a lamp life of over 1000 hours, and an LED transillumination light source. Available on both models is a new 50 mm wide-travel stage that doubles the current stage travel, enabling full imaging of NUNC chambered slides. Both the DeltaVision Core and the PersonalDV can be equipped with the Multiplexed Wavelength Module. This module uses two xenon lamps and results in faster image acquisition by eliminating filter switch time, thereby reducing phototoxicity. Contact Rob Wilson, Applied Precision, LLC [rwilson@api.com](mailto:rwilson@api.com), 425.657.1424.

**Leica Microsystems** announces the availability of the new **Leica AM TIRF system**. The Leica AM TIRF System combines superior fluorescence imaging performance, high sensitivity, and an optimum signal-to-noise ratio to ensure accurate results for all examinations of close-to-membrane structures, and offers several unique benefits including absolute assurance that TIRF is achieved with Leica's automatic laser alignment and the largest TIRF field of view available. TIRF is a particularly useful imaging technique for visualizing vesicle transport, interaction between molecules, and membrane dynamics. The evanescent illumination field from the TIRF objective penetrates specimens only a few nanometers, resulting in very high signal-to-noise ratios at the plane of focus. The Leica AM TIRF system ensures the most accurate results possible and is the easiest system to operate and maintain. The complete, fully integrated system is now available, or the system is available as a retrofit kit for existing Leica DMI4000 B or DMI6000 B inverted microscopes. Contact: Pam Jandura, [pam.jandura@leica-microsystems.com](mailto:pam.jandura@leica-microsystems.com) phone: 847/405-7062

**FEI Company** is pleased to announce the release of its **Tecnai™ 3.0 Software**. With this new release, FEI Company continues to show its dedication to invest in the award-winning Tecnai platform by bringing the Tecnai microscope control software to the next level. Tecnai now offers the most complete functionality of any modern TEM/STEM system currently on the market, with improved ease-of-use and reliability while running under Windows® XP Professional. Newly-delivered microscope systems will be standard-equipped with the 3.0 software.

An upgrade to Tecnai 3.0 software enables customers to benefit from future FEI Tecnai developments and to get the best out of their current investments. As part of the 3.0 software, the core imaging engine (also known as TEM Imaging and Analysis software) has been improved substantially. Both the functionality and the ease-of-use have been overhauled—major improvements reflect the way data is displayed; (analytical) experiments can be selected and (automatically) performed; and acquired data can be post-processed. In addition, the support of CCD cameras is more in-line with future developments. The software can be purchased for existing systems by contacting a local FEI sales representative. For further information please contact [sales@fei.com](mailto:sales@fei.com), or visit [www.fei.com/biology](http://www.fei.com/biology).

At the ASCB conference in San Diego, **Invitrogen** highlighted its latest free online bioinformatics resource, **iGene**, that lets researchers sort through over 250,000 products by gene or protein of interest. Invitrogen has already pioneered scientific context to its online catalogue through free access to over 900 Current Protocols (iProtocol) and its bioatlas of signaling and metabolic pathways (iPath). As science evolves and cross-disciplinary

research becomes more critical, Invitrogen's fully-integrated online solutions simplify product selection and help streamline the research planning process, allowing scientists to spend more time researching at the lab bench and less time searching on the web for optimal reagents. Invitrogen also introduced the Premo™ **cameleon calcium sensor** – a genetically encoded fluorescent protein that uses FRET to detect calcium levels in living cells. For more details about Invitrogen's ASCB activities, please contact Shirley Chow [shaw@pnlifesciences.com](mailto:shaw@pnlifesciences.com).

**DVC Company** ([www.dvcco.com](http://www.dvcco.com)) is an Austin, Texas based manufacturer of high performance **scientific grade CCD cameras** for an array of quantitative and qualitative imaging applications. Our cameras use industry standard interfaces such as Gigabit Ethernet (or GigE), Firewire and CameraLink to provide the highest transfer rate available for applications that demand low noise and high dynamic range. DVC's OEM friendly SDK supports Linux and Windows developers, facilitating multi-platform system integration. Support in the form of plug-ins or drivers for third party tools such as ImageJ, LabVIEW, ImagePro and others are also provided. In addition, DVC offers DVCView, a Windows GUI (Graphical User Interface) program developed for distribution as bundled software along with all DVC Cameras that are currently in production. At the recent Annual Meeting of the American Society for Cell Biology (ASCB), DVC demonstrated several products, including GigE versions of the new DVC4000 and DVC340 series of cameras. High resolution and high speed applications were shown. Also at the ASCB annual meeting, DVC was proud to unveil support for the Micro-manager Image Analysis software platform, which has been developed at the Vale Lab at UCSF. Demonstrations were conducted at the Micro-manager booth as well as at DVC's booth. Note: the imminent release of Micro-manager (slated for January 2007) will include support for DVC cameras. Contact: Paul L. Thomas, Dir of Sales & Marketing Email address: [sales@dvcco.com](mailto:sales@dvcco.com) Phone: 512-301-9564

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**Navitar** is pleased to announce the release of its new 100-page full color **product catalog**. Featuring photos, drawings, and technical specifications, the catalog includes Navitar's complete product line of innovative optical solutions for Machine Vision, Automation, Assembly, Imaging, Measuring, Inspection and Biomedical Sciences. The catalog contains over 400 products including many new lenses, attachments, adapters, controllers, and illuminators. Expanded system diagrams, performance specifications, and additional lens accessories for Navitar's signature product lines of high and low mag lenses are featured. Contact Navitar today at 800-828-6778 or visit [www.machinevision.navitar.com/catalog\\_request](http://www.machinevision.navitar.com/catalog_request) to request your copy.

**NanoSight Ltd** announces the launch of the **NANOSIGHT LM20**; a bench-top system for rapid and easy sizing, and counting of individual nanoscale particles in suspension. The new system builds on the success of the NANOSIGHT LM10 and includes precision mechanics and newly developed software that gives the non-microscope user the ability to easily analyse nanoparticles down to 15nm, (dependent on material) in a matter of seconds. The NANOSIGHT LM20 offers the ability to obtain higher resolution particle size distribution profiles than other more time-consuming and expensive methods, from samples with minimal sample pre-treatment i.e. dilution with a suitable solvent to an acceptable concentration range. The NANOSIGHT LM20 uses a patented illumination method using a laser light source to visualise nanoscale particles on an individual basis moving under Brownian motion. The system instantly recognises and quantifies polydisperse and multimodal samples as well as agglomerates and contaminants. The NanoSight Tracking Analysis (NTA) analytical software package can directly and simultaneously measure the dynamic behaviour and thus hydrodynamic size of each and every particle in a suspension and

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avoids the problems associated with the intensity bias to larger particles inherent in other bulk measurement dynamic light scattering techniques. For more information, visit [www.nanosight.co.uk](http://www.nanosight.co.uk).

**The Kurt J. Lesker CVF 1000 Ultra High, Clean Vacuum Furnace** is designed for degassing and conditioning components that are used inside a vacuum environment to reduce outgassing and pumpdown time. These parts can be components that are used in the manufacture of an end product, or tooling that is used to assist process and manufacture of an end product. Wherever there is a need for ultra high vacuum there will be a need for ultra clean, low out gassing of components inside the system. This ensures total cleanliness with lower out gassing, resulting in faster pump down and lower ultimate pressure. Contact: Mark Mattis, 412.387.9200, E-Mail: [markm@lesker.com](mailto:markm@lesker.com)

**Argonne National Laboratory** scientists in collaboration with **Xradia** have created a **new X-ray microscope technique** capable of observing molecular-scale features, measuring less than a nanometer in height. This novel technique will lead to a better understanding of interfacial reactions at surfaces, such as ion adsorption, corrosion, and catalytic reactions. In particular, this method extends the capability of x-ray microscopy to observe sub-nanometer-sized interfacial features directly and in real time. This non-invasive approach complements the more widely used scanning probe microscopes and can image the topography of a solid surface without using probe-tips near the surface. This is a significant advance towards understanding the reactivity of solid-surfaces. Future studies will extend these measurements to the observation of real-time processes of mineral surfaces in contact with water. Employing a novel x-ray microscope setup developed by Xradia, and measurements performed at Argonne's Advanced Photon Source, home of the most brilliant X-ray source in the Western Hemisphere, was central to the teams' success.

**Applied Scientific Instrumentation's MS-2000 Low Mass stage** retains the precision of our regular compact stage while providing increased thermal response times with 3/4 the mass. This small footprint stage measures 200 x 200 x 26 mm, and has 100 x 100 mm of XY travel with 100 nm resolution and 800 nm RMS repeatability. Designed to fit most upright microscopes, it is also suitable for stand-alone and OEM applications. ASI Phone: (541) 461-8181, US/CA: (800) 706-2384 [info@ASImaging.com](mailto:info@ASImaging.com)

**Nikon Instruments Inc.** announced the new **Eclipse E100 Educational Microscope**. The Eclipse E100 is an infinity corrected microscope with a small footprint to fit within tight storage cabinet space. The Eclipse E100 is an upright microscope with outstanding optical performance combined with elegant ergonomic touches. Ideal for education and routine laboratory use, the Eclipse E100 incorporates Nikon's revolutionary CFI optical system with advanced optical specifications. Nikon's CFI objectives excel at correcting both chromatic aberration and curvature of the field of view, plus feature longer working distances and higher numerical apertures. A new series of BE Plan Achromat objectives have been designed especially for the E100 with excellent optical corrections and very flat (Plan) optical performance. The Eclipse E100 provides clear bright images at every magnification. The result is first class optical quality at a modest price.

Nikon Instruments Inc. also announced the **BioStation CT**, a fully integrated, self contained cell culture observation device and monitoring system that allows users with minimal microscopy experience to conduct live cell imaging locally or by remote operation over a public or private network. The BioStation CT provides a system for managing, observing and recording cell growth, morphology, and protein expression in culture by providing consistent environmental control of temperature, humidity and gas concentration. The system allows numerous researchers to perform multiple experiments with the same instrument within the same period.

Nikon Instruments also unveiled the **Nikon DS-Qi1 Monochrome Digital Camera**, an ultra high-quality scientific grade digital camera specifically designed for fluorescence applications and an excellent choice for

high speed and high sensitivity applications in quantitative fluorescence imaging. The DS-Qi1 represents Nikon's new flagship camera in the DS camera lineup. The camera is a monochrome CCD designed specifically for fluorescence applications and features a 1.3-megapixel CCD that accurately captures microstructures at a high resolution of 1280x1024 pixels. The camera accelerates frame rates beyond previous models and improves resolution, expands dynamic range, and reduces noise by using Nikon's proprietary imaging technology.

Nikon Instruments Inc. ([www.nikonusa.com](http://www.nikonusa.com)) announced the **BioStation CT**, a fully integrated, self contained cell culture observation device and monitoring system that allows users with minimal microscopy experience to conduct live cell imaging locally or by remote operation over a public or private network. The BioStation CT provides a system for managing, observing and recording cell growth, morphology, and protein expression in culture by providing consistent environmental control of temperature, humidity and gas concentration. The system allows numerous researchers to perform multiple experiments with the same instrument within the same period. For more information visit the Nikon website at [www.nikonusa.com](http://www.nikonusa.com). Product related inquiries can be directed to Nikon Instruments at 800-52-NIKON.

**Asylum Research**, a premier manufacturer of scanning probe/atomic force microscopes, has announced the installation of the **MFP-3D Atomic Force Microscopy System** at the European Synchrotron Radiation Facility (ESRF) in Grenoble France. The MFP-3D System, a high precision AFM, and the first system to be installed at ESRF, will be used in the Surface Science Laboratory for both biological and hard condensed matter analysis applications. For additional information, please contact Terry Mehr, 805-696-6466, [terry@AsylumResearch.com](mailto:terry@AsylumResearch.com), [www.AsylumResearch.com](http://www.AsylumResearch.com).

**BioVision Technologies** is pleased to announce that it has **acquired the software code**, distribution rights, and specific assets related to IPLab for Macintosh® from BD BioSciences (BD) of Rockville, Maryland. The acquisition will have no impact on licensing rights as we continue to support existing IPLab Macintosh® customers, and has no impact on IPLab for Windows ownership or distribution, which remains owned by BD. There will be no immediate changes to the IPLab for Macintosh® product line, which is being renamed "iVision-Mac™". As in the past, any future changes to iVision-Mac will be communicated as warranted. For all inquiries: Please go to <http://www.biovis.com/bodies/Contact.html>

**Olympus Micro-Imaging** is introducing the next generation of stereomicroscopes, featuring the industry's widest zoom ratio (16.4:1 for the SZX 16), enabling crystal-clear 3D observation and inspection right down to the most detailed microstructure.

Ideally suited for research in industrial materials and electronic components, Olympus' **new stereomicroscopes, the SZX 16 and SZX 10**, feature improved resolution, ergonomic control refinements for better user comfort, and true color reproducibility. The SZX 16 offers 900mm line pair resolution and Olympus' Super Depth of Focus (SDF) objectives for the industry's highest resolution and maximum aberration correction, virtually eliminating image aberrations. For more information visit [www.olympusmicroimaging.com](http://www.olympusmicroimaging.com).

The **Nanozoomer**, a virtual microscopy system that quickly delivers automated, high throughput slide scanning with outstanding image quality, is available from Bacus Laboratories Inc., a wholly owned subsidiary of Olympus America Inc. Manufactured by Hamamatsu Corporation, Nanozoomer allows researchers to do fast, accurate slide scanning for analysis, publication or archiving. With the click of a button, up to 210 slides are automatically scanned at 20x or 40x using a 4096 x 64 pixel CCD continuous-scan technology. The end result is a high-quality virtual slide in about four minutes.

The newest member of the high-performance Olympus DP **microscope camera series is the DP25**, which offers outstanding color rendition



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and 5-megapixel imaging. Designed for fast and easy documentation, publication, and image analysis requirements when high-resolution detail is essential, the camera offers an impressive full-resolution (2560 x 1920 pixels) live image preview at a frame rate of 8.4 frames per second (fps).

Olympus has introduced its latest innovation for objective-based total internal reflectance fluorescence (TIRF) - a new multicolor, multi-angle illuminator that allows simultaneous multi-channel laser TIRF illumination. The **TIRF illuminator** allows up to three discrete laser lines to be used simultaneously for illumination, each with its own critical angle. In TIRF, the light's angle of incidence dictates how deeply the evanescent wave penetrates into tissue, and lasers of different wavelengths require varying angles to operate at their peak. For more information on these products contact Olympus America Inc., 1-800-455-8236; or visit [www.olympusamerica.com/microscopes](http://www.olympusamerica.com/microscopes)

**Leica Microsystems** introduces a series of microscopes designed for polarizing examinations. Leica's new **DM Pol microscopes** offer superb polarization contrast and are ergonomically designed to be comfortable, easy-to-use, and adaptable down to the last detail. Whether for sophisticated research, routine applications or vocational/academic training, Leica can configure a microscope to meet individual needs with a variety of application-specific camera systems and software modules for fast, convenient image documentation.

Leica Microsystems Inc. Also presents the new **Leica VT1200 and VT1200 S vibrating blade microtomes** for sectioning fixed or unfixed tissue specimens, with specific application for the neurosciences. The VT1200/VT1200 S microtomes feature a new blade holder design that minimizes vertical deflection of the blade and protects delicate specimens, such as brain, spinal cord, and other mammalian tissues, from mechanical damage. The instrument's stability and the minimized vertical deflection result in sections of the highest quality, while greater numbers of viable cells are retained on the section surfaces. **For more information contact:** Molly Lundberg, 847/405-0123, [news@leica-microsystems.com](mailto:news@leica-microsystems.com)

**JEOL USA** introduces the latest in imaging technology and microscopy automation with its new 120 kV high resolution Transmission Electron Microscope (TEM). This versatile instrument, the model **JEM-1400**, is optimized for biological, polymer, and materials research, combining



both imaging and cryomicroscopy excellence. High contrast resolution is assured at 0.38nm point-to-point and 0.2nm lattice images. The TEM can be quickly configured for either high contrast imaging or scanning transmission electron microscope (S/TEM) analysis. A micro-precision, drift-free Piezo goniometer stage provides superior sample positioning and an extended tilt range of +/- 70° for detailed 3-D tomography. A variety of quick-change specimen holders with multiple exchangeable tips are available for cryogenic sample transfer, automated multiple sample imaging, and analytical S/TEM. Key to the simplified operation of the JEM-1400 is the new **TEM Center** operating environment. The Windows<sup>®</sup>-based graphical user interface (GUI) displays TEM conditions, operation windows, digital CCD, S/TEM (bright field and dark field) images, and EDS elemental mapping data. JENIE™ software, a set of tutorials, user guides, and a TEM navigation system, enhances the user experience. For more information visit [www.jeolusa.com](http://www.jeolusa.com), or call 978-535-5900.

**CRAIC Technologies** introduces its new **UV-visible-NIR range microscope and micro-imaging system, the UVM-1™**. Operating in a spectral range from 200 to 2500 nm, the UVM-1™ microscope is capable of transmittance, reflectance, polarization and even fluorescence. Designed to be a flexible, the UVM-1™ can either image narrow bands or over a wide

spectral range depending upon the users requirements. Capable of imaging with sub-micron resolutions, the UVM-1™ works non-destructively and with little sample preparation. The microscope is equipped with UV-visible-NIR range optics and has many magnifications due to the large number of UV-visible-NIR range objectives offered. Also included are UV-visible-NIR light sources and high resolution UV, visible and NIR imaging systems, making the UVM-1™ a versatile microscope with many different applications. In the DUV region, the UVM-1™ is used for direct imaging and intrinsic fluorescence of proteins, mapping of biological structures without stains, sub-surface inspection of semiconductors, and inspection of flat panel displays. The varied applications are due to the fact that the UVM-1™ can image in the DUV via transmittance, reflectance and even fluorescence. Additionally, the same instrument can also image in the near-IR. In this region, the applications range from high resolution imaging through silicon, GaAs and other normally opaque materials, detection of counterfeit documents and artworks, mapping structures in vivo and much more. With its unmatched capabilities, the UVM-1™ represents a significant advance in microscopy and analytical micro-imaging. Dr. Paul Martin, CRAIC Technologies, [www.microspectra.com](http://www.microspectra.com), P.310.573.8180

An innovative microscope technology invented by researchers at **Rensselaer Polytechnic Institute** has been licensed by **Thorlabs Inc.**, a manufacturer of photonics products. The device, which is called the **Adaptive Scanning Optical Microscope (ASOM)**, provides the ability to view large areas of a sample without sacrificing image resolution. It is especially suited for automating difficult tasks in biological laboratories, from diagnosing cancer to discovering new drugs. CONTACT: Jason Gorss, 518-276-6098 (office), [gorssj@rpi.edu](mailto:gorssj@rpi.edu)

**Applied Precision (R)**, LLC, a leading provider of imaging, measurement and analysis systems for both the semiconductor and life science industries, today announced the expansion of its restoration imaging series, **DeltaVision (R)**, with the **PersonalDV** and **DeltaVision Core** systems. Set to enable today's high-resolution, high-throughput experimentation for research and drug discovery, the PersonalDV and the DeltaVision Core aim to address two market needs: an affordable, high-quality imaging system for fixed- and live-cell imaging and a high-powered imaging system able to extend live-cell performance and manage high-volume data generation, respectively. Contact Paul Goodwin of Applied Precision, at +1-425-657-1398 or [pgoodwin@api.com](mailto:pgoodwin@api.com)

**Energy Beam Sciences** announces a revolutionary, reliable microwave paraffin heating method: **PolarHeat™** (patent pending). Because microwaves heat polar materials, non-polar paraffin used to be finicky, requiring additional ovens or paraffin dispensers for precise pre-heating. Failure to pre-heat could translate to equipment or tissue damage, due to paraffin's failure to absorb microwave energy. With PolarHeat™ these concerns are done away with. Obviously, if paraffin could be reliably heated as if it were water, many problems and issues would be eliminated. Now this is possible: in a single, affordable, disposable PolarHeat™ sheet, placed at the bottom of an approved processing container, converts microwave energy to heat, with the additional benefit of convective mixing. Paraffin can now be handled and heated like any other reagent; for all intents and purposes, paraffin heats in the microwave just like any polar material. PolarHeat™ can even melt solid paraffin in mere minutes, whether fresh from the bag, or preheated and solidified. Currently PolarHeat™ is in stock and sized for EBS 7" (inside bottom diameter) Pyrex® processing dishes and vacuum chambers; other sizes and shapes quoted upon request. Details available at [www.ebsciences.com](http://www.ebsciences.com), or e-mail [pmcardle@ebsciences.com](mailto:pmcardle@ebsciences.com).

**Hyphenated Systems** announced the release of its new **HS200A NanoScale(tm) Optical Profiler**. The HS200A adds extensive automation capability to the Hyphenated Systems workhorse—the HS200OP—for the fastest, most repeatable non-destructive analyses in critical metrology, inspection, failure analysis and quality control applications. The

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system incorporates Hyphenated Systems' patented Advanced Confocal Microscopy(tm) (ACM) technology that acquires and displays high-resolution (<50nm) three-dimensional images in seconds. The HS200 systems also provide the user with all the capabilities and flexibility of a fully functional, research-grade binocular optical microscope. The system is ideal for 3D imaging and metrology of rough or sloped surfaces of MEMS and other semiconductor devices, or imaging subsurfaces through transparent materials. The NanoScale Optical Profiler acquires a series of images that slice through the sample at varying heights, then combines these images into a three-dimensional model of the sample. Its unique ability to collect data simultaneously through multiple confocal apertures greatly accelerates the data acquisition process, allowing it to construct and display 3D images in seconds. Now the automation capabilities of the HS200A add more speed to routine tasks and improves the repeatability of measurements by removing the variability associated with the operator. The HS200A can move the sample to predefined locations, find features of interest and acquire measurements—all without operator intervention, and without the variability introduced by operator judgment, differences between operators, or operator fatigue. For more information, please visit [www.hyphenated-systems.com](http://www.hyphenated-systems.com).

**FEI Company** will expand its top-of-the-line Helios NanoLab(tm) family of DualBeams(tm) when it introduces the **Helios NanoLab 400 and 400S systems**. Combining advanced focused ion beam (FIB) and scanning electron microscope (SEM) technologies in a highly-integrated and easy-to-use platform, the Helios NanoLab family of tools will provide semiconductor manufacturers with a complete range of advanced high-resolution solutions for their analytical labs. As with all FEI products for semiconductor manufacturers, the new Helios NanoLab systems are designed to help semiconductor companies move through their design and process ramps quickly and with more efficiency, enabling them to move new products to market faster. The Helios NanoLab family features a new ultra-high resolution field emission SEM column combined with FEI's widely acclaimed Sidewinder(tm) FIB column and gas chemistries to provide up to 40 percent improvement in imaging resolution compared to previous DualBeam systems. These systems feature greatly enhanced low-kV SEM resolution to support cross-sectional imaging and analysis and advanced STEM applications for devices featuring new materials and sub-65 nm design nodes. They also provide enhanced stability and optimized operation within a wide range of parameters. More information can be found online at: [www.fei.com](http://www.fei.com).

**JENOPTIK Laser, Optik, Systeme GmbH** offers a complete **macro-photography system for ProgRes®**. The new image documentation system is easy to operate and captures images of superior quality. Equipped with a first-class macro zoom objective lens, the system records objects of 6 x



4 mm<sup>2</sup> to 40 x 30 cm<sup>2</sup>, producing fully sized pictures and exceeding even stereo microscopes in terms of the image field size captured. Its working distance ranges from 14 cm to 90 cm with a zoom ratio of 6:1. Ergonomic manual levers are provided for precision alignment of the objective lens. The stand consists of an extremely low-vibration guiding column with a manual friction drive and weight compensation. Its robust base plate of 45 x 50 cm<sup>2</sup> is adequately sized to accommodate greater photographic objects, too. Convenience in working with ProgRes® cameras and image capturing software

The macro workstation may be combined with any ProgRes® camera model. Specially recommended selections are the ProgRes® CF scan and the C14 plus model with an image resolution up to 12.5 mega pixels. Its microscanning technique

facilitates preview and detail images with identical setting of the stand and the objective lens. ProgRes® Capture software displays a live image on the monitor and provides automatic image setting and image saving functionality. Jenoptik's macro workstation offers a complete solution to address all these application needs with a system of excellent price-performance ratio. Contact Ingetraud-Ute Graupner, **JENOPTIK Laser, Optik, Systeme GmbH**; +49 3641 65-3237, E-mail: [ingetraud.graupner@jenoptik.com](mailto:ingetraud.graupner@jenoptik.com)

# Microscopy AND Microanalysis

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