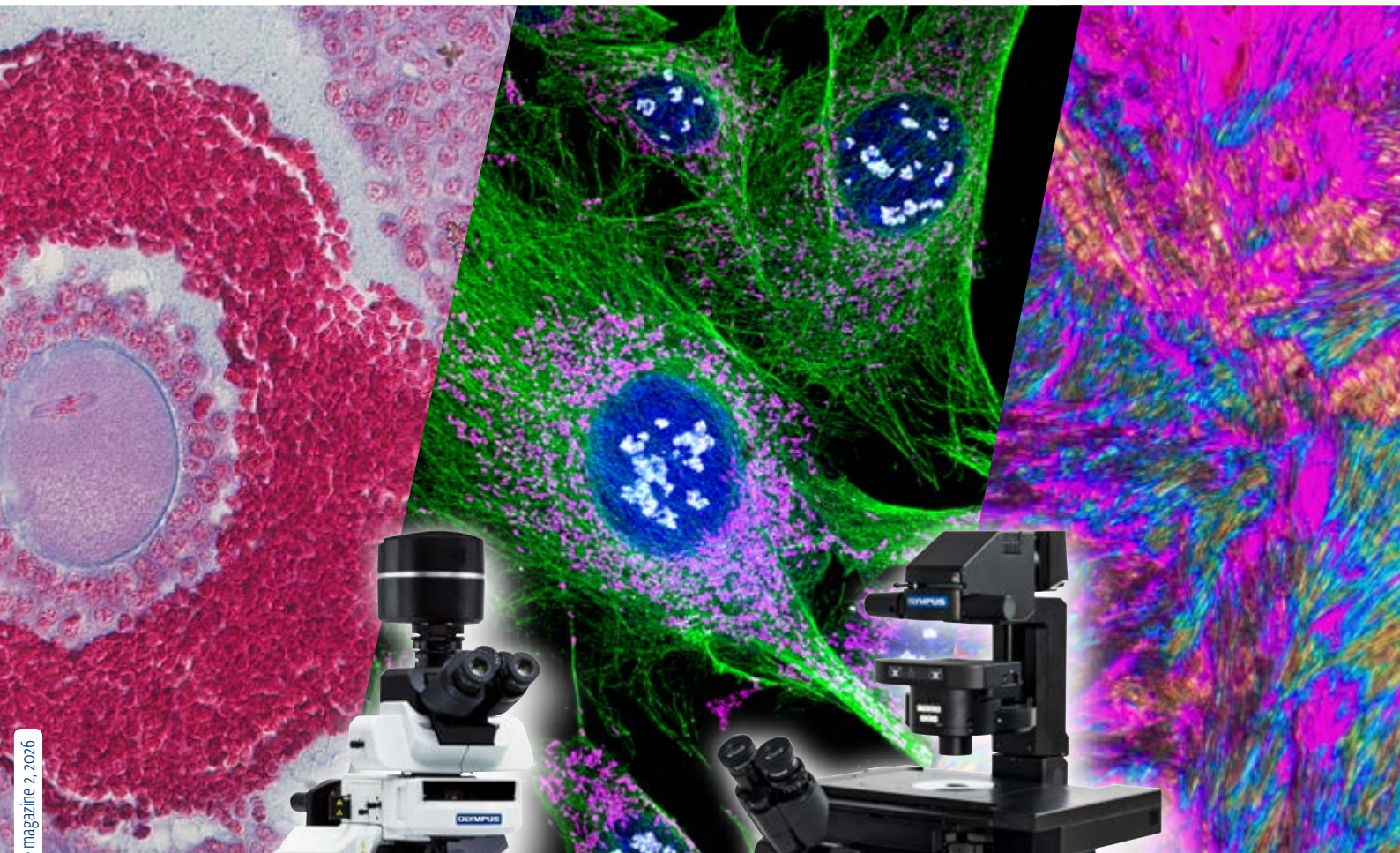


Microscopy

Your guide to selecting the right microscope
for Life Science and Material Testing



BUCH  HOLM



At Buch & Holm, we take pride in offering a diverse range of high-quality microscopes designed to meet the unique needs of various applications. Here, we present a selection of our microscopes and accessories suitable for use in life science, clinical research, education and material science.

If you need more information or guidance on purchasing the perfect microscope for your application, contact our microscopy team.



Choosing the right microscope



At Buch & Holm, we offer a wide variety of ready-to-order microscopes and can also provide tailor-made solutions for our customers. We have a wide range of microscopes for biological research, clinical applications, and material science. The specific microscope needed always depends on the sample you wish to observe.

Biological microscopes are used for clinical and life science applications to view cells and tissues. They are normally equipped with light sources that provide transmitted illumination through the specimen. If you only observe your samples from a slide, choose an upright microscope. If you view your samples from a variety of different containers, e.g. slides, culture flasks, well plates, petri dishes etc. choose an inverted microscope.

Biological microscopes allow you to view your sample under high magnification typically ranging from 50x-1000x and achieve a two-dimensional view. If you want a three-dimensional view of your sample, choose a stereo microscope, which offers magnifications ranging between 5x-100x.

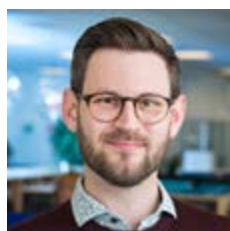
Microscopes for material science are often designed for use with reflected light on solid materials, although transmitted solutions are available where needed. Necessary illumination and contrast methods depend on your samples - contact us for any questions.

Kristoffer Laugesen

Product Manager

Tel.: 44 54 00 22

E-mail: kla@buch-holm.dk



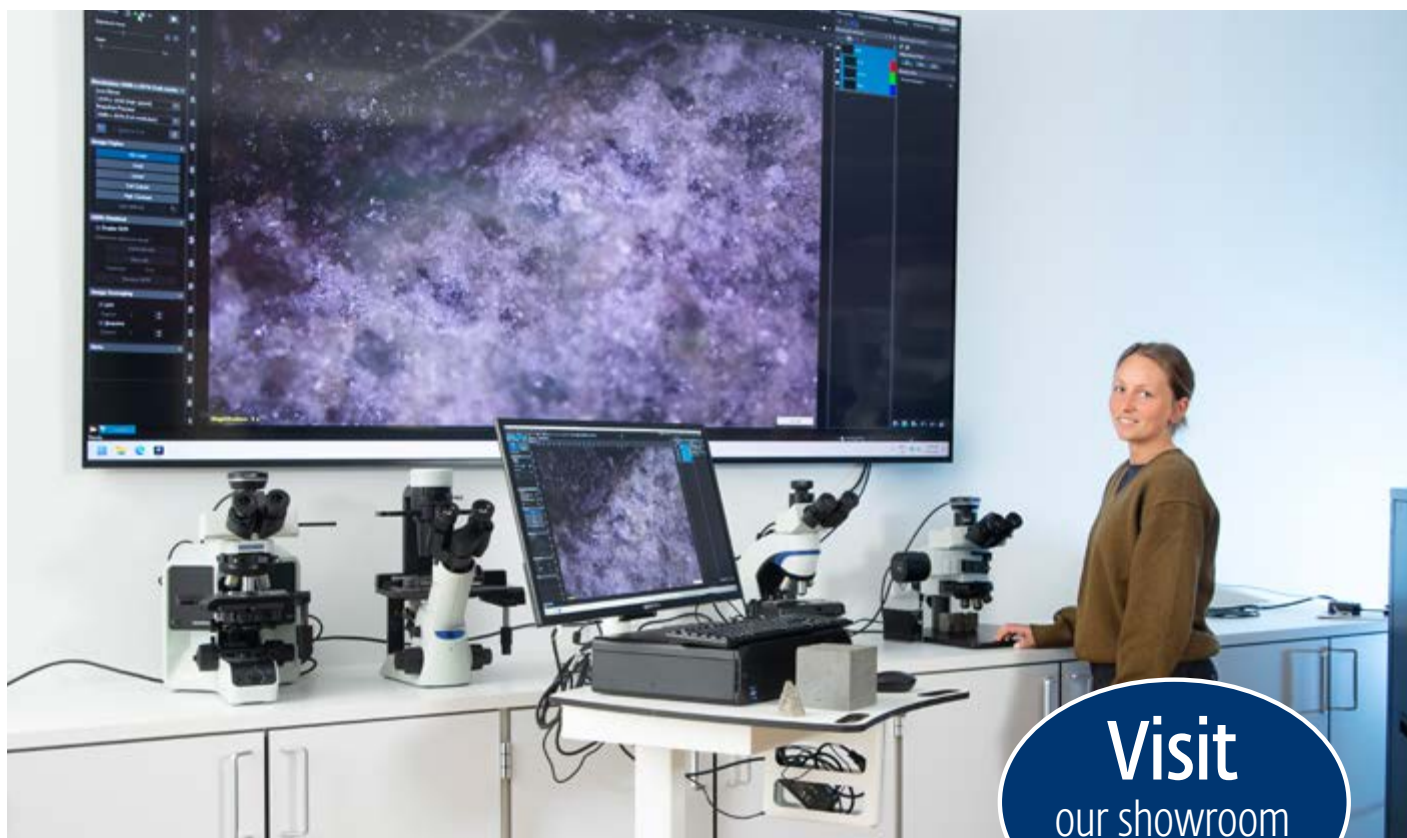
Alberte Wille Hansen

Product Specialist

Tel.: 44 54 00 65

E-mail: abh@buch-holm.dk





Buch & Holm invites you inside for a talk with our microscope team and to test our various demo microscopes. We are the Danish distributor of Evident/Olympus microscopes, and we always have a selection of microscopes and cameras in our showroom for you to try out by appointment. We also have a selection of lighting solutions for stereo microscopes from Schott.

At Buch & Holm we have the following microscopes in our showroom, which can be demoed with various cameras on our demo computer:

- Upright microscope CX23 for general use, 4x-100x
- Upright microscope CX43 with phase contrast, 4x-100x
- Inverted microscope CKX53 with phase contrast, 4x-40x
- Upright microscope BX43 with phase contrast and optical elements for polarization, 10x-40x
- Stereo microscope SZ61, 6.7x-45x
- Stereo microscope SZX7, 8x-56x

Moreover, we have a selection of camera solutions for microscopes:

- DP23 6.4 MP Color camera with CMOS-sensor, that captures images in HD quality with 60 frames per second and excellent color reproduction – designed for life science and clinical research
- LC35 3.5 MP color camera with CMOS-sensor, that offers great image quality and color reproduction – a budget friendly solution for standard brightfield microscopy
- EP50 5 MP color camera with CMOS-sensor, that offers great image quality and flexibility, incl. Wi-Fi and HDMI – designed for interactive learning environments

Contact our microscope team for more information:

Kristoffer Laugesen at tel. 44 54 00 22, e-mail kla@buch-holm.dk

Alberte Wille Bøgvad Hansen at tel. 44 54 00 65, e-mail abh@buch-holm.dk



UPRIGHT MICROSCOPES

Biological upright microscopes are used in life science and in clinical environments. They are used for observing slides with tissue sections, smears and innately transparent samples.

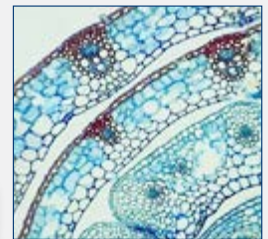
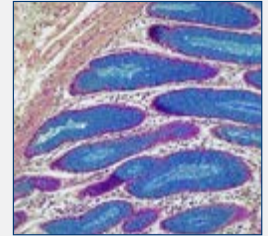
OLYMPUS CX23, CX33, CX43

The CX series from Olympus are upright microscopes built for comfortable working positions and are easily adjustable. For sharp image quality the CX series uses Plan Achromatic objectives, which provides flatness and a wide field of view (FN 20). Depending on the model, the LED light offers 20.000 – 60.000-hour long lifetime, providing daylight conditions so specimens can be viewed in natural colors.

For classroom use, the CX series is available with the wireless LAN-enabled EP50 digital camera, combined with a heads-up display for easy group viewing.

Highlighted options:

- Brightfield, Darkfield (Fluorescence, Phase contrast, and Simple Polarization for CX43)
- Binocular or trinocular
- 2X-100X magnification objectives



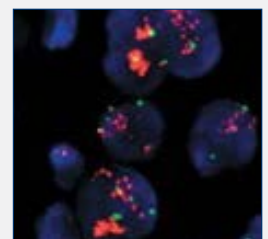
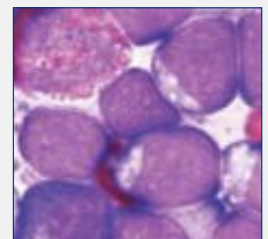
OLYMPUS BX43, BX53

The BX43 and BX53 microscopes are customizable microscopes designed to fit your application. Choose between a variety of contrast and condenser systems, objectives, tubes, stages and light sources to tailor your microscope. These microscopes are truly designed for long-term use, in which your microscope always can be upgraded to fit your future needs.

The BX53/43 is compatible with Olympus software cellSens™. The BX53 has the option for semi-motorization with motorization of objective nosepiece and filter turret.

Highlighted options:

- Brightfield, Darkfield, Phase contrast, Fluorescence, DIC, and Polarization
- Multiple condenser options: Universal, Swing-out, Achromatic/Aplanatic, Darkfield (dry or oil), Low Magnification, Abbe, Phase contrast, and Polarization condenser
- Motorization of filter wheel, nosepiece, and condenser
- Various multi-view setups



UPRIGHT MICROSCOPES

Biological upright microscopes are used in life science and in clinical environments. They are used for observing slides with tissue sections, smears and innately transparent samples.

OLYMPUS BX53-P

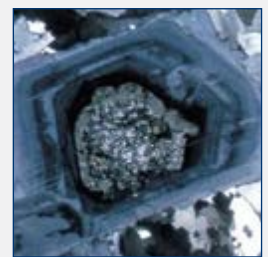
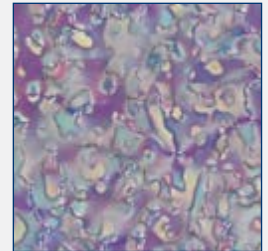
If you are working with polarized light, this is the microscope you need. This microscope delivers superb objective performance, and is equipped with a 360-degree rotary stage that gives you full control of specimen rotation. An extensive range of compatible compensators is available, which enables you to measure retardation levels in the entire field of view and the birefringence in rocks, minerals, and fibers.

Highlighted options:

- Brightfield, Polarization, and Simple Polarization
- Bertrand Lens for Conoscopic and Orthoscopic Observations
- Multiple compensators available
- 4X-100X magnification strain-free objectives for polarization



EVIDENT
OLYMPUS



OLYMPUS BX63

The Olympus BX63 microscope is a motorized workhorse. With its advanced, fully motorized stage and precise focusing system, it ensures accurate and reproducible results. The ability to switch between multiple contrast techniques allows for a wide range of applications. With the convenience of a touchscreen interface, it becomes easy to operate. Additionally, it features a detachable controller that can be positioned to suit the operator's preferences or workflow requirements.

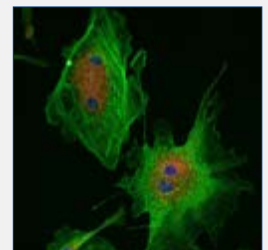
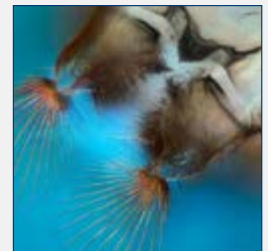
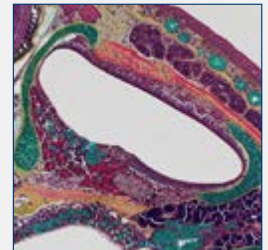
The BX63 offers a broad range of accessories and upgrades, including various apochromatic objectives, filter sets, and imaging cameras, which make it adaptable to a wide range of research needs and allow users to tailor the system to their specific applications. This microscope is particularly useful in applications like cell biology, cancer research, and molecular biology with its enhanced fluorescence capabilities.

Highlighted options:

- Brightfield, Phase contrast, DIC, Fluorescence and Polarization
- 4X-100X magnification Apochromatic objectives
- Complete motorization and touch screen interface



EVIDENT
OLYMPUS



Did you know...?

... you can bring your samples to our showroom in Herlev? Explore a variety of advanced microscopes and try out the latest models from Olympus. Our experts are ready to provide professional insights and help you make an informed decision. Contact b-h@buch-holm.dk to set up your visit.



INVERTED MICROSCOPES

Inverted biological microscopes are used to observe living specimens, often in cell culture applications where researchers monitor cells growing in dishes or other containers without disturbance. Unlike upright microscopes, they have the objective lens below the stage, and the light source and condenser above.

OLYMPUS CKX53

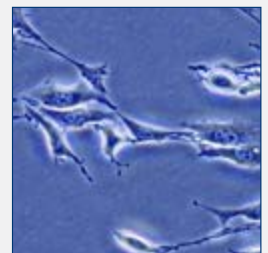
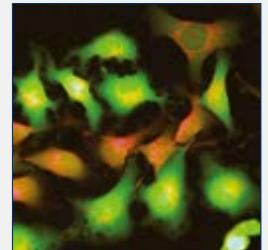
The Olympus CKX53 inverted microscope is your perfect microscope for routine live cell observations and cell sampling. Controls including power switch, coarse and fine focus, and the light path are all placed conveniently for comfortable hand positions. With the CKX53 standard fluorescence set, even weak fluorescence signals can be viewed clearly with different integrated light sources, and user-friendly phase contrast without the need to change the phase ring between the objectives.

Highlighted options:

- Brightfield, Phase Contrast, Fluorescence (Blue, Green, Ultraviolet)
- Flexible sample holder for multiple specimen containers
- 4X-40X magnification objectives



EVIDENT
OLYMPUS

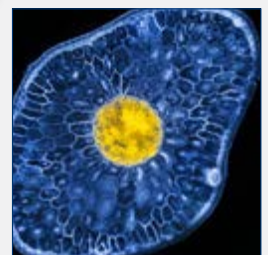
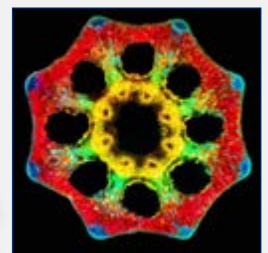


OLYMPUS IX73

The IX73 inverted microscope is designed for advanced research, offering exceptional optical performance and flexibility. Customize it with a wide range of objective lenses and enjoy high-resolution optics and ergonomic design for superior image quality. The IX73 is also designed for compatibility with a wide range of imaging techniques, providing researchers with the tools needed for detailed and reliable analysis of any specimen. Additionally, the IX73 microscope features a versatile one- or two-deck system that can be upgraded with motorized components, such as a filter wheel for multi-fluorescence or an intermediate magnification changer, providing a flexible magnification setup. Lastly, the IX73 boasts an industry-leading 26.5 mm field of view! This expansive view delivers unmatched detail and coverage, allowing you to capture more information at the same magnification.

Highlighted options:

- Brightfield, Phase Contrast, Multi-fluorescence, DIC, and Polarization
- 4X-100X magnification objectives
- Choose manual, coded or motorized components e.g. objective nosepiece, filter turret, and condensor
- Intermediate magnification changer (1X, 1-6X, and 2X)



EVIDENT
OLYMPUS

Did you know...?

... that you can visualize living cells effortlessly with phase contrast microscopy? This technique enhances the contrast of transparent, colorless specimens like cell cultures and microorganisms. It allows detailed observation of living cells without fixation or staining.



IMPROVE YOUR IVF WORKFLOW

Support your IVF workflow with high-quality microscopes for every step of In Vitro Fertilization (IVF) – from sperm and oocyte observation to ICSI, IMSI and Spindle Localization.

IX73 MICROSCOPE: MOTORIZED OBSERVATION METHOD SWITCHING

Effortlessly change observation method and adjust the magnification by the press of a button thanks to the integrated hand switch remote. The system is fitted with optical elements for Olympus' relief-contrast required for Intracytoplasmic Sperm Injection (ICSI), Differential interference Contrast (DIC) for Intracytoplasmic Morphologically Selected Sperm Injection (IMSI) and polarization for Spindle Localization ICSI (SL-ICSI). The system can be configured with semi- or full motorization and is available with Eppendorf/Calibre or Narishige micromanipulation systems.

Highlighted options:

- Available with Eppendorf/Calibre or Narishige micromanipulation systems
- Choose between pneumatic- or oil microinjectors
- Semi- or complete motorization



EVIDENT
OLYMPUS



BX53 BIOLOGICAL MICROSCOPE

The BX53 possesses high-luminosity, high color rendering combined with infinity-corrected optics enable you to view sperm movement and activity with ease through bright, high-contrast images.

Highlighted options:

- DIC, Polarization, and Fluorescence
- Motorization of filter turret, nosepiece, and condenser

EVIDENT
OLYMPUS



SZX16 STEREO MICROSCOPE

This stereo microscope features a wide zoom ratio of 1:16.4 and good contrast for oocyte and embryo observation. The ergonomic design offers high operability and decreased eye fatigue for comfortable operation.

Highlighted options:

- Galilean optical system
- Brightfield, Oblique (standard and high contrast), and Darkfield observation

EVIDENT
OLYMPUS



The IX85 comes with several new built-in features:

- A new automatic correction collar fine-tunes your objective settings for optimized image quality and reduces spherical aberrations
- Built-in magnification changer offers multiple options (1x, 1.6x, and 2x), allowing you to tailor imaging to your camera's pixel size
- TruFocus Z-drift compensator for one-time or continuous autofocus
- One or two decks for modular expandability of the infinite light path
- Two built-in ports (left and right) and an optional third port enable the capacity for create a multi-camera, multimodal configuration



THE NEW IXPLORE IX85

The new IXplore™ IX85 is a fully automated, inverted microscope system, delivering an unmatched level of customizability. With industry-leading 26.5 mm field of view and an array of advanced end-to-end imaging and workflow features, the IXplore™ IX85 captures more than ever before while dramatically reducing your acquisition times.

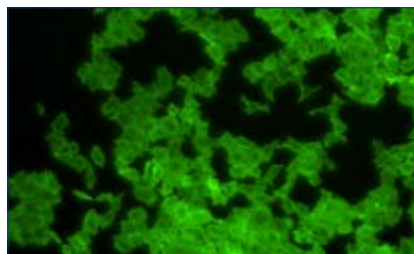
Even illumination and intelligent shading correction across the entire sample also means fewer shadows, and your images require little to no manual correction.

New Automatic Correction Collar

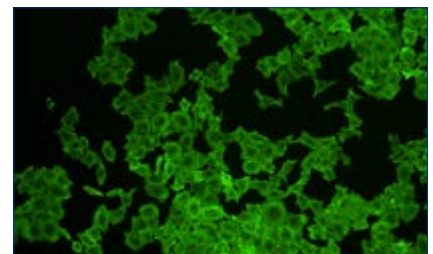
Our new correction collar automatically fine-tunes your objective settings and optimizes image quality by reducing spherical aberrations caused by variations in cover glass thickness. Create sharper, more detailed images with the simple click of a button. Compatible with over 18 different objectives to meet your research needs.

Multiple Magnifications

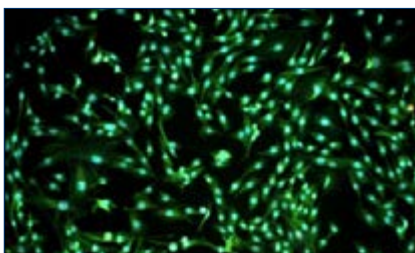
Our built-in magnification changer offers multiple magnification options (1x, 1.6x, and 2x), enabling you to tailor imaging to your camera's pixel size.



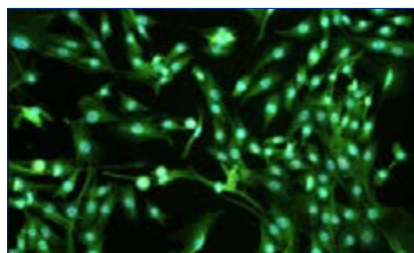
Without automatic correction collar adjustment



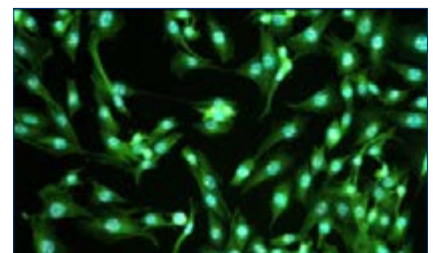
With automatic correction collar adjustment



1X



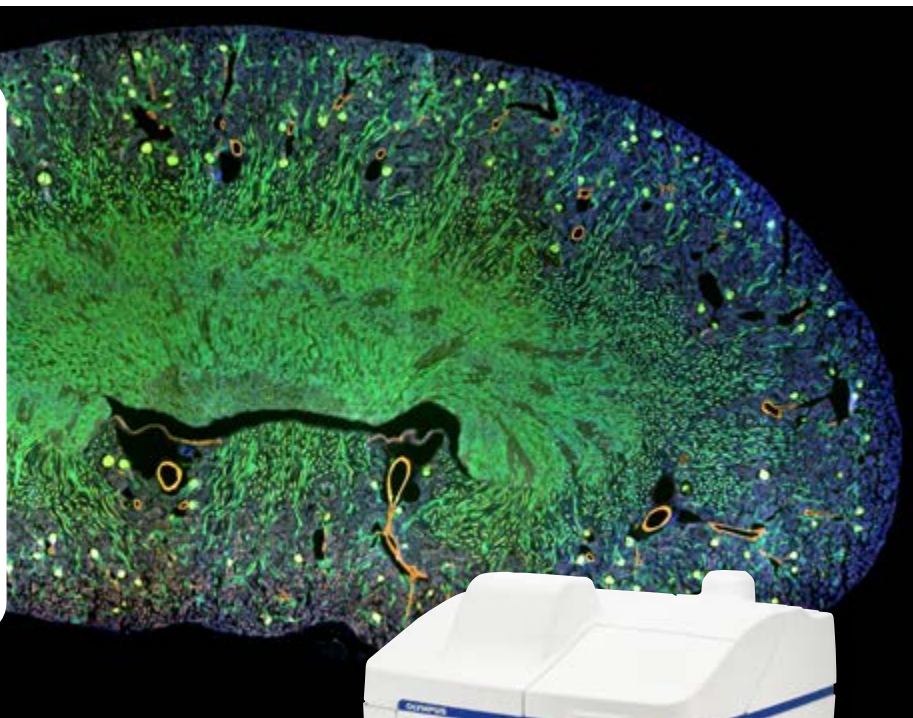
1.6X



2X

At Buch and Holm, we are excited to introduce the APX100 to our customers. We have designed [three levels of APX100](#) but can tailor the systems to your needs. All three levels come with motorized filter wheel, LED/ LDP light source, 3 filter cubes, sample holders, and motorized smart stage navigation. They also feature built-in macro camera, monochrome and color cameras as well as an imaging platform. However, the microscope can be customized to fit your application.

Please contact b-h@buch-holm.dk and get your custom-made solution.



BOX MICROSCOPE

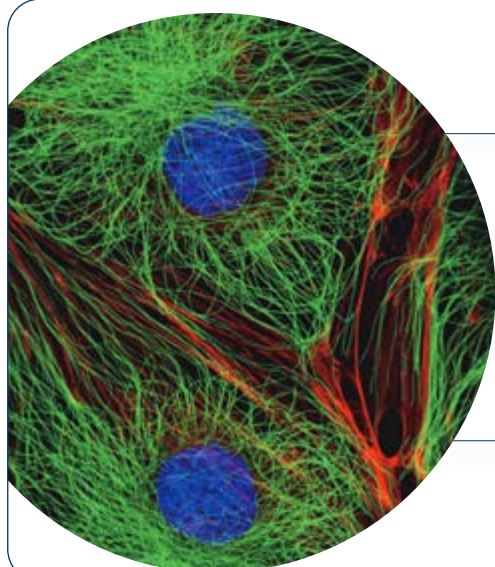
APEXVIEW™ APX100

APX100 is an inverted, all-in-one benchtop box microscope with fluorescence which makes it fast and simple to acquire expert-quality microscope images. Built with renowned Olympus optics, an intuitive user interface, a powerful AI, and a suite of smart features, the APX100 system combines the ease of use of an all-in-one microscope with high-quality image data to fit your research needs. APX100 supports up to 6 objectives, 8 filter cubes, and acquisition with Brightfield, Phase contrast, Fluorescence, and Gradient contrast.

APX100 is equipped with sample navigation and high-speed autofocus

so you can find your region of interest at record speed with a sharp, crystal-clear resolution.

The APX100 microscope features a system that organizes and stores your data. When you capture an image, the software automatically creates and saves it in the appropriate folder for each sample, ensuring your data is consistently indexed and easy to find. Lastly, the system is equipped with the powerful cellSens™ software, which makes it possible for you to perform deconvolution, and create time-lapses and multiple overlays, while still remaining user-friendly and intuitive.



Flatness

Expanded flatness with consistent sharpness, from the center to the edge

No Chromatic Aberration

Exceptional color accuracy during brightfield and multicolor fluorescence imaging

High Numerical Aperture

Improved brightness, resolution, and signal-to-noise ratio resulting in excellent image quality

Experience the Future of Microscopy with Olympus X Line™ Objectives

Unlock the full potential of your microscope with Olympus X Line™ objectives, crafted using cutting-edge polishing techniques for ultrathin lenses, and a Field Number of 26.5 mm. for expanded field of view.

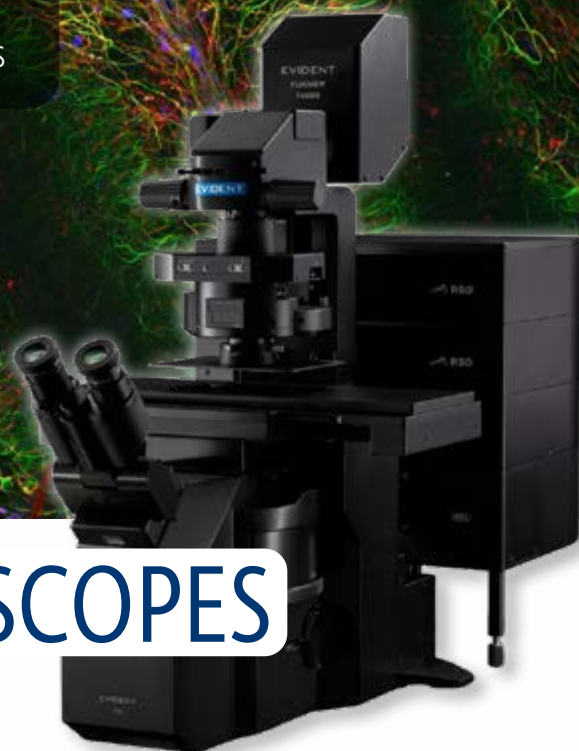
The new multi-immersion objective LUPLAPO25XS (NA 0.85, WD 2 mm) combines all the quality and advantages of silicone immersion with the convenience and usability of a dry objective. Used with silicone immersion oil, water, or the new durable silicone gel, it is the most versatile objective on the market for organoids, small organisms, 3D cell cultures, multi-well plates, and a range of other applications.

Absolute Quantitation – Every Pixel, Every Run

Combine beautiful images with beautifully quantifiable results

CONFOCAL MICROSCOPES

Achieve cleaner images with confocal microscopy by removing out-of-focus light and increasing contrast compared to widefield techniques – either with Point Scanning Confocal, Multiphoton, or Spinning Disc Confocal systems.

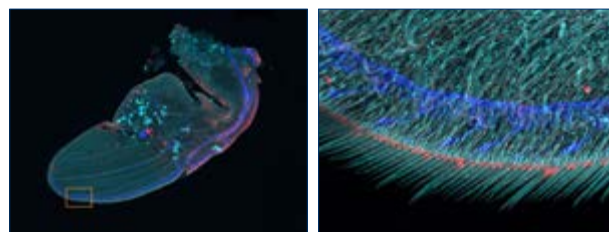


FLUOVIEW™ FV5000

The new FV5000 is a cutting-edge laser scanning confocal microscope with excellent speed and extremely low noise. It is built on the IX85 inverted frame for cells, organoids etc., or the BX63 upright frame for documentation, electrophysiology, or large samples. With the breakthrough SilVIR™ detectors at the core of the system, you get significantly lower noise, higher sensitivity, and improved photon resolving capabilities compared to conventional detector systems.

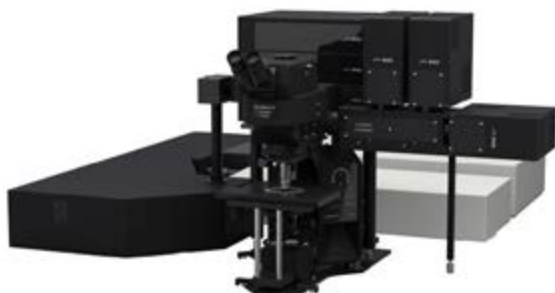
Game-changing quantitation

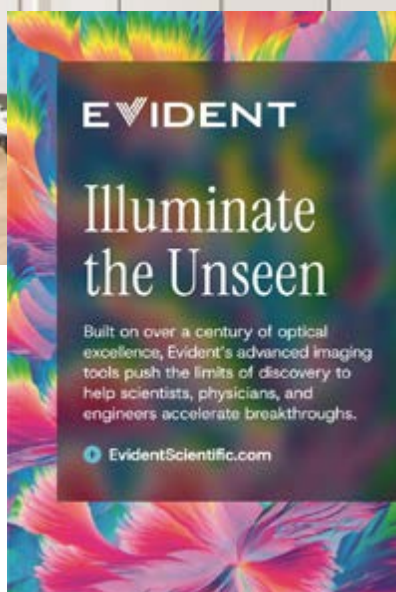
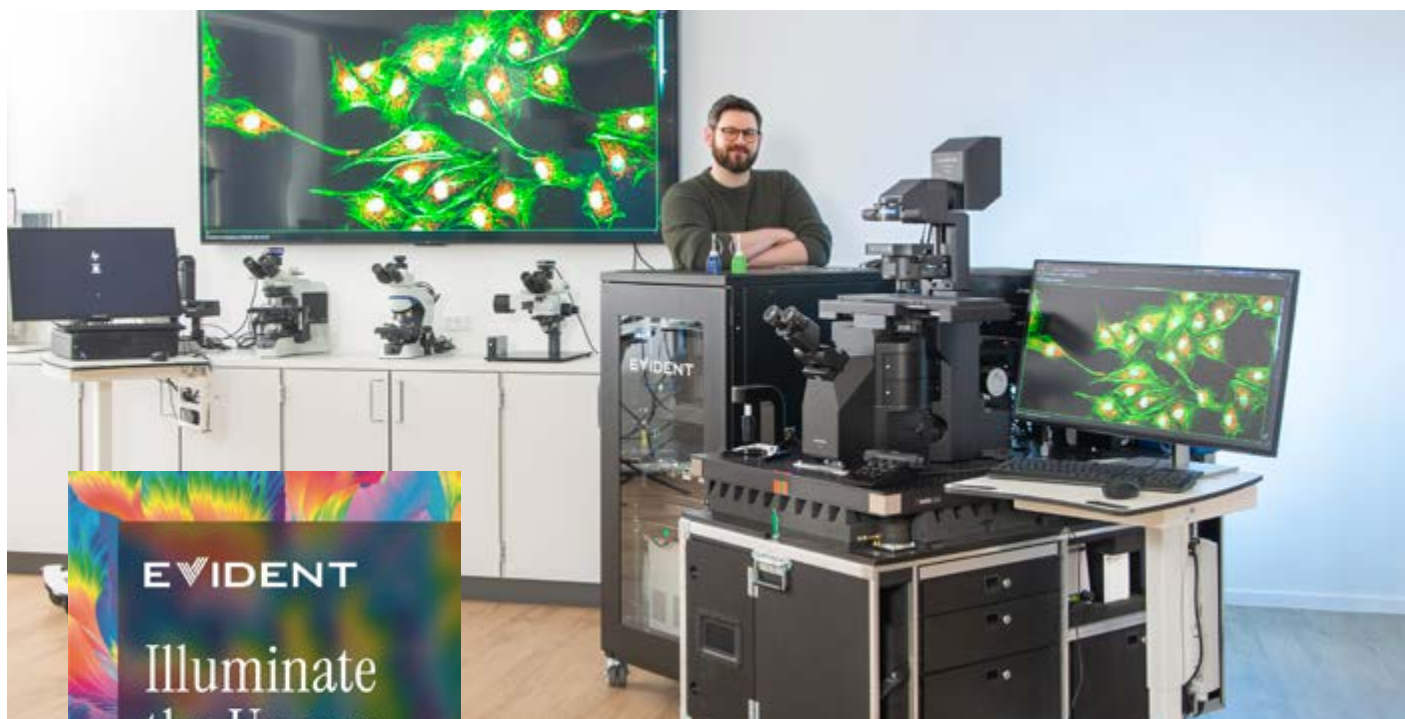
The design behind the patented spectral SilVIR™ detector enables absolute quantitation for more reliable data image intensity for more reliable data. Imaging data can be displayed as the number of photons, providing the absolute value of the fluorescence intensity for each image. The wider dynamic range provides accurate quantitation of fluorescence intensity by photon number even at high-intensity levels.



One platform for your research needs:

The FV5000 microscope is engineered to be modular, making it easy for you to configure the system for your applications and budget. You can start with a standard FV5000 and upgrade to multiphoton imaging by adding the MPE module (left) to include 2nd and 3rd harmonic generation imaging as your research evolves, or combining with the SpinXL spinning disc at the full FN 26.5.





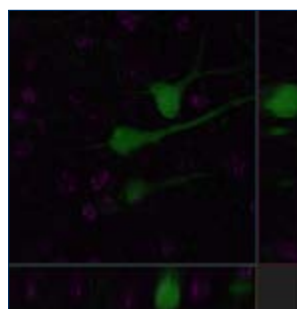
Did you know...?

... that we occasionally have high-end demo systems visiting our showroom for our customers to experience the systems, as well as seminars on various microscopy related topics. Make sure to keep an eye out for microscopy events at our website www.buch-holm.dk

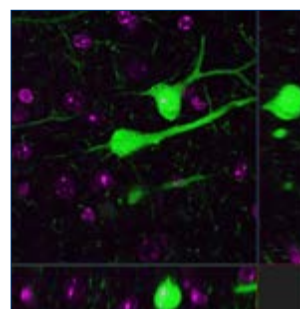


Fine-tuning your work

The new FV5000 has integrated TruResolution™ technology, which dynamically fine-tunes the automated correction collar during XYZ scans for consistent image sharpness. With a single click, the system automatically identifies the optimal correction for your sample, simplifying one of microscopy's most tedious tasks.



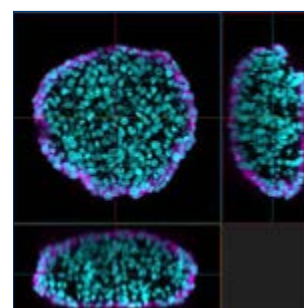
Without automatic correction collar adjustment



With automated correction collar

FV5000 Highlights:

- Extraordinary clarity, speed, and reliability
- SiVIR™ detectors deliver photon-level quantitation for every experiment
- Exceptional sensitivity and ultra-high signal-to-noise ratio
- Unmatched dynamic range captures the full signal spectrum without saturation
- Redesigned high-speed 2K resonant scanning
- Redesigned high-density 8K galvo scanning
- New FLUOVIEW Smart™ software simplifies operation
- TruResolution™ auto correction collar optimizes focus for over 20 objectives
- Modular design allows for future multiphoton or photomanipulation upgrades
- Supports up to 10 laser lines from 405 to 785 nm
- Laser Power Monitor (LPM) ensures stable illumination
- Reliable, repeatable detectors and laser power for full reproducibility



Cleared HeLa cell spheroids.
Cyan: nuclei. Magenta: microtubules

SLIDE SCANNERS

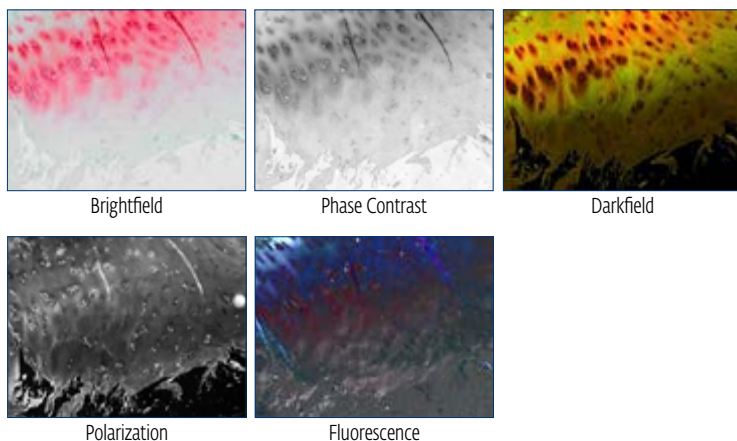
A microscope slide scanner automates the digitization of slides, producing high-resolution images of specimens. Essential in pathology, research, and education, these scanners streamline laboratory workflows. Enhance your pathology workflow with the Olympus SLIDEVIEW™ VS200 and DX scanners for fast, efficient quantitative analysis or diagnostics, without sacrificing image quality or color accuracy.

SLIDEVIEW™ VS200

Easily analyze, share, and archive your data with the SLIDEVIEW™ VS200 Research Slide Scanner. Designed to capture high-resolution images of your slides for quantitative analysis, the system enables you to make the most of the information your slides have to offer.

Available as a single-tray system or with a multi-tray Loader, you can examine from 6 to 210 slides in one batch – or add slides to the batch with quick-swap.

Document and analyze your slides with Brightfield, Darkfield, Polarization, Phase contrast, and Fluorescence – with the possibility to scan a sample using multiple techniques at the same time. With the TruAI™ Deep-Learning module, you can automatically recognize morphological features for quick and precise analysis.



Highlights:

- Outstanding image quality for quantification
- Better resolution and image flatness
- Supports multiple hardware options
- Flexible software solutions
- Integrated label recognition and barcode reader
- Simplified and powerful workflow
- High-resolution scanning
- Accurate focus at all magnifications
- Accurate color reproduction and uniform illumination
- Upgradeable to semi-confocal SILA optical sectioning

SLIDEVIEW™ DX

The Digital Pathology Slide Scanner SLIDEVIEW™ DX VS-M1 combines the most advanced Olympus technology to deliver microscope-quality images directly on its built-in medical-grade monitor, facilitating the digital pathology workflow to help pathologists make diagnoses efficiently with images they can rely on.



Highlights:

- X-line objectives and top-end optics give excellent images
- Fast, efficient digital pathology workflow
- Process up to 300 slides at a time
- High-speed scanning with more than 80 slides per hour
- View images in a virtual slide book
- Integrates with your Lab Information System
- Slides can be shown with patient information
- Enables remote collaboration with comments and notes
- Reliable sample detection limits scan time

SLIDEVIEW™ DX VS-M1 is an approved medical device in the EU.



INCUBATION MONITORING SYSTEM

A cell incubation monitoring system provides real-time data on cell growth and health, reducing the need for manual checks. It ensures accurate, consistent results by maintaining optimal conditions and automating data collection. These systems save time, reduce contamination risk, and allow remote monitoring, making cell culture experiments more efficient and reliable.

OLYMPUS CM30

The Olympus CM30 incubation system is an advanced solution for monitoring cell cultures during incubation. The incubation system remains inside your incubator and periodically scans your cell cultures, counts the number of cells, and determines confluence. With the CM30, you can achieve precise and reliable quantitative data without disturbing your cultures, thanks to its label-free imaging technology. This means you do not need to stain your cells with a fluorophore, nor do you need to disturb your cells during their growth, reducing the risk of contamination. The system can monitor a variety of container types, including 6-well to 96-well plates, petri dishes, and culture flasks.



Incubation

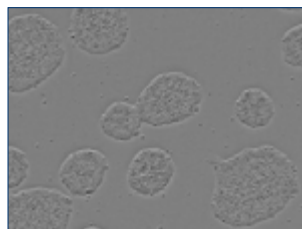
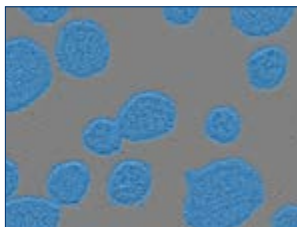


Image Acquisition



Analysis



Automatic quantitative data

Highlights:

- The CM30 system uses machine learning-based image analysis to continuously capture and quantify culture status, improving reproducibility and consistency
- Analysis parameters can be customized for different cell types, culture conditions, and treatments
- Enables easy comparison of current and historical data
- Automatically measures confluency, cell counts, and colony counts
- Monitoring culture status over time enhances experimental accuracy
- Dedicated PC and software

EVIDENT
OLYMPUS

13

Did you know...?

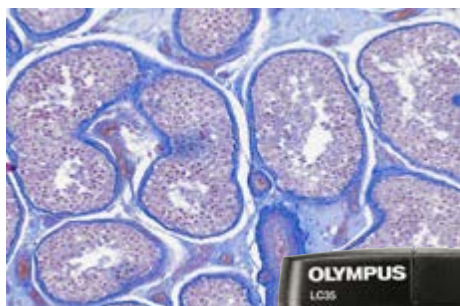
... we distribute Zystm microscopy tables, designed to elevate the ergonomics and comfort of routine microscopy users. The tables are built with 3 individual tabletops, which are adjusted in height with a gentle press on the control panel. The armrests are mounted on the 2 side panels, providing the greatest stability to the table where the microscope is placed. The armrests can be individually adjusted in height and angle relative to the tabletop.

The columns of the table are equipped with an electrically driven spindle motor, ensuring stable and secure movement. The design ensures that the product can be used in Genetically Modified Organisms (GMO) areas. All surfaces are smooth and withstand professional cleaning.



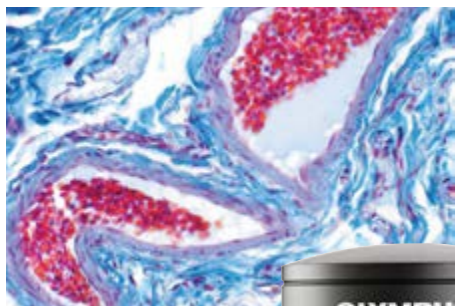
MICROSCOPE CAMERAS

Discover the ideal camera for your samples through Buch & Holm's partnership with Olympus. Our selection of microscope cameras boasts a variety of image sensors, pixel sizes, and sensitivities, ensuring optimal performance for observation methods such as fluorescence, brightfield, and infrared. Additionally, our cutting-edge AI software solutions are designed to streamline your lab work, maximizing efficiency.



OLYMPUS 3.5 MP COLOR CAMERA LC35

The 3.5 MP digital microscope camera LC35 balances image quality and affordability to deliver excellent value for brightfield applications. Its CMOS sensor enables the capture of detailed brightfield images for routine imaging, inspection, and documentation. LC35 seamlessly integrates with Olympus imaging systems. The LC35 camera can be controlled with ease through Olympus cellSens™ or the free LCmicro software.



OLYMPUS 18 MP COLOR CAMERA SC180

The 18 MP digital microscope camera SC180 offers fast 4K UHD live imaging and real-time image processing capabilities to create low-noise images for acquisition with excellent color reproduction. The CMOS sensor provides excellent resolution with a pixel count of 18 million (18 MP) to exploit the full optical resolution of the objectives. The camera is compatible with Olympus cellSens™ software and enables effortless data transfer via its USB port.

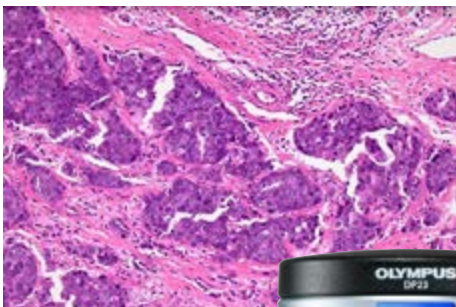


EP50+ MONITOR

The Olympus EP50 is a budget-friendly 5 MP color camera offering high image quality and flexible connections, including Wi-Fi and HDMI. Ideal for interactive learning, it allows real-time image and video sharing with mobile devices and computers. The camera is also available as stand-alone mode, or you attach a monitor kit directly to the camera, ensuring ease of use.

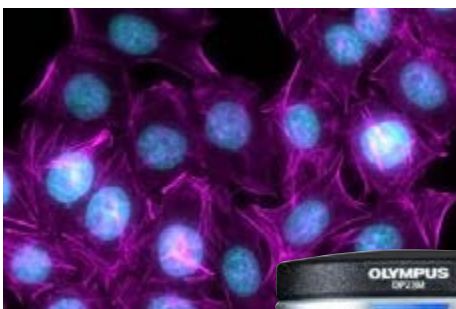
Did you know...?

... in addition to Olympus microscope cameras, we also offer third party microscope cameras from Hamamatsu Photonics, Teledyne Photometrics, Oxford Instruments Andor and DeltaPix to suit every application from color to high-end monochrome imaging.



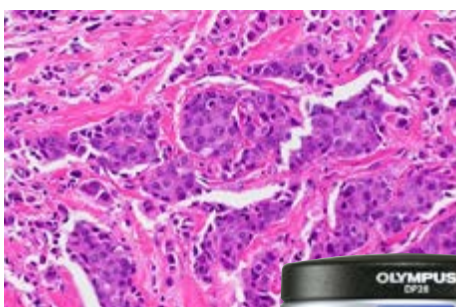
OLYMPUS 6.4 MP COLOR CAMERA DP23

The DP23 MP camera is designed for everyday life science and clinical research microscopy imaging. It combines smart features with reliable color accuracy, ensuring high-quality images in an easy-to-use device. Its CMOS image sensor captures HD images at 60 frames per second, ensuring that the images appear exactly as they do through the microscope's eyepieces. This allows you to achieve clear and sharp images, even when the stage is in motion. The camera works with Olympus cellSens™ and images are transmitted via USB. The camera is also available as a stand-alone unit, which means the camera operates independently without the need for an external computer to function.



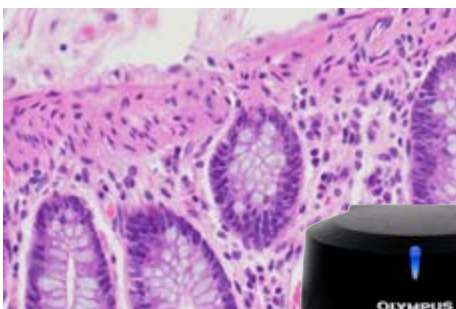
OLYMPUS 6.4 MP MONOCHROME CAMERA DP23M

The DP23M 6.4 MP is a high-end monochrome digital microscope camera that enables you to capture small, subtle details under challenging lighting conditions or with dimly lit samples. Its CMOS sensor delivers sensitivity and resolution, while minimizing noise. It is easy to use and delivers quick, high-quality fluorescence images and is also ideal for near-infrared imaging. The camera is compatible with Olympus cellSens™ software and enables effortless data transfer via its USB port.



OLYMPUS 8.9 MP COLOR CAMERA DP28

The 8.9 MP digital microscope camera DP28 offers advanced features, exceptional color accuracy, and 4K resolution. Due to its large 1.1" CMOS sensor you can capture more of your sample with images that are sharp, flat, and in focus from the center to the periphery. Easily share images and data with colleagues globally through the cellSens™ software. The camera is also available as a stand-alone unit which means the camera operates independently without the need for an external computer to function. Just connect it, turn it on, adjust it to your setup, view and transfer data.



OLYMPUS 12.37 MP COLOR CAMERA DP75

The 12.37 MP digital microscope camera DP75 is designed to excel in a wide variety of applications. The DP75 camera offers exceptional color fidelity, 4K resolution and sharp, low-noise images due to its high-sensitivity CMOS sensor. With the DP75 camera, there is no need for switching between color and monochrome cameras when capturing brightfield and fluorescence imaging. The camera is compatible with Olympus cellSens™ software and enables effortless data transfer via its USB port.

TECHNICAL SERVICE

A microscope is an important instrument in the day-to-day work, and we recommend an annual service check. In connection with the service call a service report is completed, and this is used for documentation. At the annual check the microscope is cleaned, inspected and lubricated carefully.

Our technician will check the following:

- Cleaning and inspection of lenses
- Control and test of light source
- Cleaning and test of stage
- Adjustment of Köhler alignment
- Cleaning and adjustment of condenser
- Cleaning and adjustment of ocular lenses

The above applies to basic microscopes, but we also offer service agreements for more complex fluorescence microscopes, etc.

Reach out to our Service Coordinator Kristine today and get your microscope serviced by Buch & Holm's experienced service technicians.

Kristine Povelsen
Service Coordinator
Tel.: 44 54 00 26
E-mail: kp@buch-holm.dk



STEREO MICROSCOPES

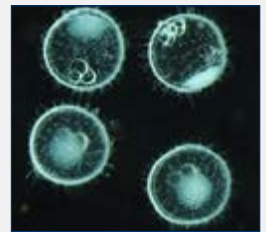
A stereo microscope provides a three-dimensional image of a specimen. A dissecting microscope or stereo zoom microscope are other names for this type of microscope.

OLYMPUS SZ51, SZ61

The Olympus SZ51/SZ61 are compact routine stereo microscopes with great optics facilitated by the microscopes' Greenough optical system, which delivers flatness and ample depth of field along with clarity, detail, good color rendering and minimal distortion.

Highlighted options:

- Brightfield, Darkfield, Simple Polarization, and Oblique
- Multiple light guides available
- Multiple bases incl. a variety of boom stands
- Multiple front lens choices (achromatic)
- Zoom ratio of 5:1 or 6.7:1

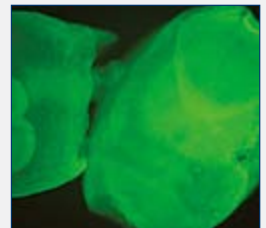


OLYMPUS SZX7/10/16

The Olympus SZX series is a versatile and high-performance line of stereo microscopes, designed for a wide range of applications in both research and industrial environments. Offering exceptional clarity and precise imaging, the SZX series is particularly well-suited for professionals who require accurate 3D imaging and comfortable viewing for extended periods of time. With a variety of advanced optical features and an innovative design, the SZX series stands out from other microscopes, providing unparalleled performance and ease of use.

Highlighted options:

- Galilean optical system
- Brightfield, Darkfield, Polarization, Oblique, and Fluorescence contrast methods
- Apochromatic and achromatic objective options
- Zoom ratio of 7:1, 10:1 or 16:1

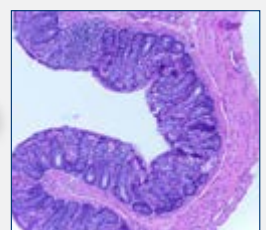
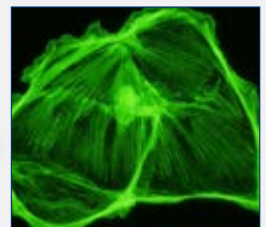


OLYMPUS MVX10

The MVX10 microscope combines high fluorescence efficiency with stereo observation, providing exceptional brightness, resolution, and precision. With incredible zoom factor and a long working distance, it is ideal for both macro- and micro-observation of whole organisms as well as fine details in tissues and cells. Perfect for research applications e.g. when observing living specimens and for material science e.g. when inspecting the properties of building materials.

Highlighted options:

- Single zoom optical path with a zoom ratio of 10:1
- Brightfield, Oblique, Darkfield, Polarization, and Fluorescence contrast
- Tilting trinocular head
- Apochromatic lenses



At Buch & Holm, we distribute Schott light sources and light guides for stereomicroscopy, supporting all lighting setups.

We have extensive knowledge on providing you with the very best solution for your sample analysis. If you need more information or guidance on purchasing the perfect microscope for your application, you can contact our product specialist, Alberte Wille Hansen, at tel.

+45 44 54 00 65 or via email at abh@buch-holm.dk

Proper illumination is essential for successful stereo microscopy. When the surface is accurately highlighted, it reveals hidden details, allowing the observer to thoroughly examine and evaluate the specimen.

However, finding the right illumination setup for your sample analysis can be a daunting task.



ILLUMINATION FOR STEREO MICROSCOPY

SCHOTT
glass made of ideas

SCHOTT KL FIBER OPTIC LIGHT SOURCES

The KL Fiber Optic Light Sources offer a variety of options for cold light in microscopy. When paired with flexible SCHOTT light guides, the four models cater to different needs – including the compact KL 300 LED for educational and basic inspection purposes, as well as the KL 2500 LED, designed for specialized applications. In addition, we recommend the KL 1500 HAL if a halogen light source is desired for better color rendering. Check out the different cold light sources on our [website](#)

Light guide add-ons:

- Brightfield and Darkfield ring lights
- Line Light and transmitted light stage
- Polarization and color filters available
- 1-3 branch goose necks



KL 1500 HAL



KL2500 LED



KL300 LED



KL1600 LED

SCHOTT EASYLED COMPLETE SYSTEMS

The SCHOTT EasyLED light sources offer a selection of LED light guides that can be directly attached to your stereo microscope without the need of a separate cold light source. This includes goose necks, ring lights, and a back light. A combination of high brightness, consistent color temperature and a long lifetime makes the SCHOTT EasyLED series ideal for reliable and efficient illumination. Check out our entire SCHOTT EasyLED selection on our [website](#)



EasyLED goose necks



EasyLED ring light



EasyLED back light

UNDERSTANDING LIGHT SOURCES IN STEREOMICROSCOPY

Microscopy samples vary widely, requiring diverse lighting options to reveal relevant details accurately.

Back lights for transparent samples

To illuminate samples from below, back lights are employed. Back lights are also referred to as transmitted light stages. Brightfield back lights are used for transparent stained specimens, while Darkfield Back Lights are utilized for transparent unstained specimens.

Ring lights for nontransparent samples and shadow-free illumination

A ring light is attached onto the objective and will provide a shadow-free illumination of your specimen. Many ring lights can be adjusted with full-circle mode, which will provide a uniform illumination. This feature is great for color analysis and image stitching. They may also have a segment mode, which enables a particular section of a ring light to illuminate. This is great for shiny samples to avoid reflections or for surface topography analysis.

Line lights for nontransparent and flat samples

If you need to enhance the visibility of fine surface structures on flat samples, a line light can be a very beneficial addition to your stereo microscopy setup. A line light illuminates the specimen with grazing light at a low angle, which enhances the contrast of small structures.

Goose necks for nontransparent samples and high versatility

With goose necks the light direction and angle can be adjusted, which provides the user with a very flexible illumination method. However, the illumination is not reproducible. Depending on the angle of the light, you can alter the impression of your specimen, including the contrast of surface structures.



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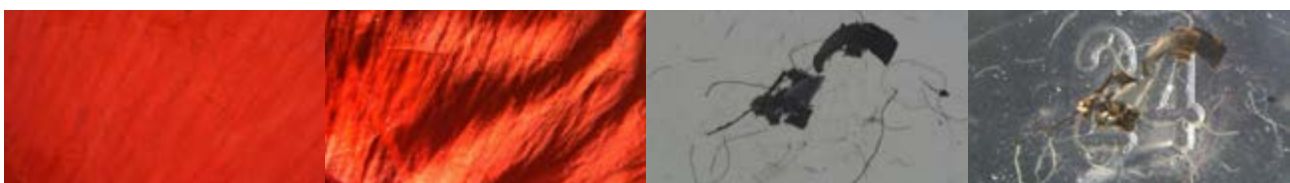


Leather - Ring light

Leather - Line light

Diode - Full-circle ring light

Diode - Segmented circle ring light



Corn puppy - Ring light

Corn puppy - Goose necks

Plastic bottle
- transmitted light stage w. Brightfield

Plastic bottle
- transmitted light stage w. Darkfield

MATERIALS SCIENCE AND INDUSTRIAL MICROSCOPES

Accuracy is the key to progress in materials science and industrial inspection.

METALLURGICAL MICROSCOPES

Metallurgical microscopes are specialized optical instruments designed for examining the microstructure of metals and other solid materials. They are essential tools in materials science, quality control, and industrial research, enabling users to analyze surface features, grain structures, coatings, and defects with high precision.

Find solutions tailored to specific applications, such as our BX53M upright microscope for general to specialized observation, BX53-P upright microscope for polarized light analysis, GX53 inverted microscope for large or irregular sample inspection, and DSX2000 digital microscope series for seamless, all-in-one imaging. All Evident metallurgical microscopes feature world-class optics for enhanced observation, insight, and analysis based on Olympus excellence and rich history.

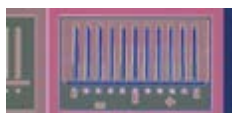


SEMICONDUCTOR WAFER INSPECTION MICROSCOPES

Semiconductor wafer and flat panel display inspection microscopes provide the highest level of efficiency, ensuring fast start-up times, easy operation, failure analysis, and expandability for users. Evident's selection of semiconductor inspection microscopes is designed for the safe transfer of wafers, ideal for semiconductor defect inspection. In addition to automated wafer handling systems, a digital microscope may be employed for detailed analysis of small defects within semiconductors.



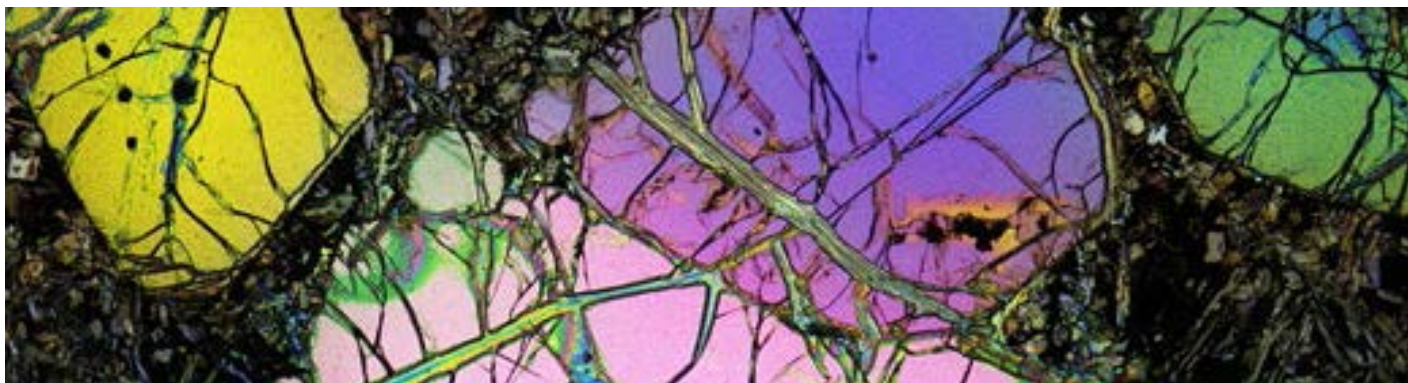
DF



MIX: BF+DF

Did you know...?

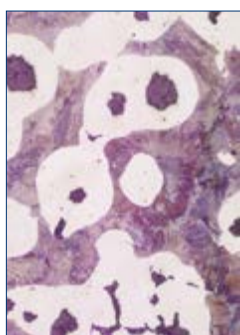
... the MIX function of BF/DF enables the observation of both the IC Pattern and wafer color.



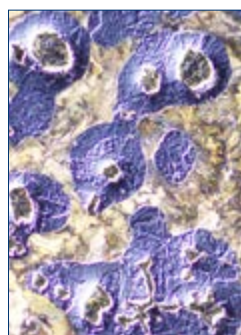
CIX100 INSPECTION SYSTEM

The CIX100 inspection system is a dedicated, turnkey solution for manufacturers who maintain the highest quality standards for the cleanliness of manufactured components. Quickly acquire, process, and document technical cleanliness inspection data to comply with company and international standards.

Paired with PRECiV™ CIX software, the CIX100 delivers reliable technical cleanliness analysis at industry-leading speed, making it ideal for high-throughput labs. The interface guides users through each step, so even novice operators can acquire cleanliness data quickly and easily. Compliant results are customized to company and industry standards, including ISO 16232 and VDA 19, in just one click.



Brightfield



DIC observation

STM7 MEASURING MICROSCOPE

STM7 microscopes offer excellent versatility and high-performance, three-axis measurements of parts and electrical components, with sub-micron precision. Whether samples are small or large, simple or complex, or measurements are being taken by a novice or an expert, the Evident STM7 range features measuring microscopes tailored to fit your needs.



Differential interference contrast (DIC) is an observation technique where the height of a sample, normally not detectable in brightfield, is visible as a relief, similar to a 3D image with improved contrast. It is ideal for inspections of samples that have very minute height differences, including metallurgical structures and minerals.

DIGITAL MICROSCOPES

Advanced digital microscopy for fast, accurate imaging and measurement.

LEXT OLS5500

3D optical profilometers use noncontact measurement to capture high-precision surface data, making them ideal for delicate or complex parts in materials science, R&D, and manufacturing QA/QC. Evident 3D optical profilometers set a new standard in precision surface measurement, providing measurement confidence with precise surface detail, traceable accuracy, and smart automation.

Uniting laser scanning microscopy (LSM), white light interferometry (WLI), and focus variation microscopy (FVM), the award-winning 3D optical profilometers offer true-to-form surface details across complex geometries. Identify subtle features and surface variations with unparalleled clarity—use LSM, WLI, and FVM to detect defects, confirm designs, and make confident decisions that help improve product quality and yield.

Laser confocal optics acquire LSM images using a 405 nm laser diode light source and a high-sensitivity photomultiplier. In WLI, height information is obtained from interference fringes generated when light from a white light source is split by a beam splitter within the objective lens and reflected from both the sample surface and a reference surface. FVM determines height information by identifying the Z-position at which the image contrast reaches its maximum.



DSX2000 DIGITAL MICROSCOPE

The award-winning DSX2000 digital microscope series captures exceptional images that go beyond 4K digital imaging—simplifying industrial inspection tasks, boosting productivity and profitability, and streamlining workflows for QA/QC professionals. The DSX2000 fully motorized digital microscope integrates smart AI-powered tools, all-in-one digital imaging, and customizable interfaces into an industrial inspection solution ideal for electronics, automotive parts, metallurgical, and semiconductor inspection.

Designed for quick, accurate 2D and 3D digital measurement, the DSX2000 delivers exceptional high-resolution imaging, with a wide magnification range suited for accurate industrial inspection,

quality control, failure analysis, and surface metrology. With 4K digital microscope cameras and a wide depth of field, the DSX2000 provides crystal-clear imaging of even the most complex materials and components.



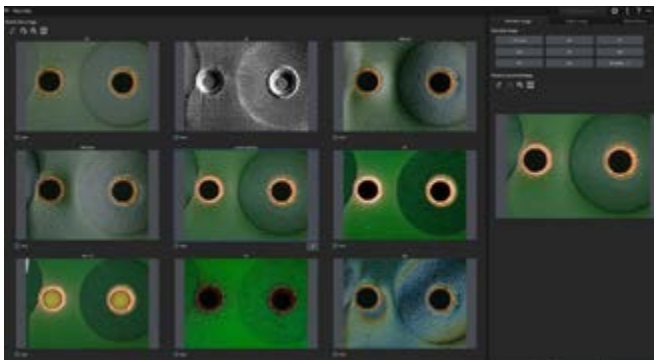
SOFTWARE SOLUTIONS

Powerful imaging software for efficient measurement, analysis and documentation.

PRECiV™ IMAGING & ANALYSIS SOFTWARE

PRECiV™ software puts you in control of your microscope so that you can perform repetitive, 2D/3D measurements and advanced image analysis during production, QC, and inspection operations. Designed for Evident's digital and conventional microscopes, the software streamlines workflows with smart tools for imaging, measurement, and reporting

An intuitive experience helps users efficiently move from image acquisition to report generation. With options from material analysis workflows to AI-powered image analysis, PRECiV software adapts to diverse inspection needs while supporting compliance with standards such as ASTM, ISO, and JIS.



PRECiV™ **Capture** is our entry-level package for customers who want to acquire digital images and make basic 2D measurements, transforming their existing microscopes into digital workstations for applications like incoming goods inspection.

PRECiV™ **Core** is ideal for customers in QA labs and inspection rooms with a strong focus on images. PRECiV Core balances cost and features, adding extended focus images and measurement export capabilities for an excellent value.

PRECiV™ **Pro** has the complete set of features and functions, making it the most powerful and versatile version of the software. The Pro version has the tools required for customers in QA/QC, failure analysis, and anyone who needs to produce analytical reports and measurements to validate a sample or production lot.

PRECiV™ **DSX** enables you to control our DSX series digital microscopes, including DSX2000 and DSX1000 systems. The software streamlines your inspection workflow with control of macro-to-micro observation, multiple observation methods at the push of a button, and easy objective lens changes.

PRECiV™ **Desktop software** is made for customers who want to post-process their data independent from the microscope with all the available measurement and analysis capabilities, but without the camera and image capture controls.

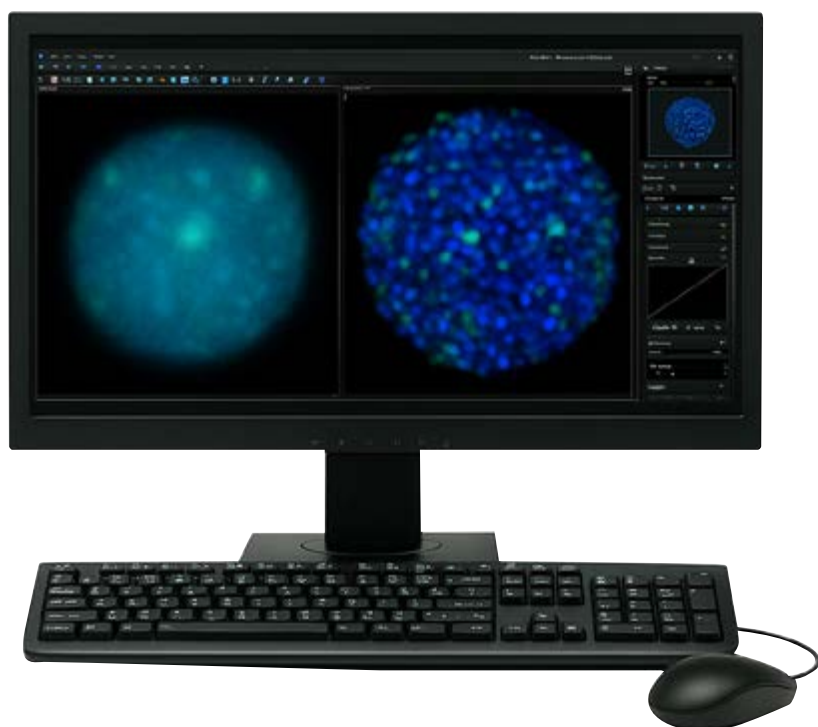
SOFTWARE SOLUTIONS

Acquiring the appropriate microscope and camera is just the first step. Equally important is the ability to seamlessly conduct accurate analyses of your microscope images. Olympus cellSens™ software is fully compatible with all Olympus microscope cameras and offers advanced image processing capabilities and high-tech features to enhance your daily workflow.

CELLSENS™ IMAGING SOFTWARE

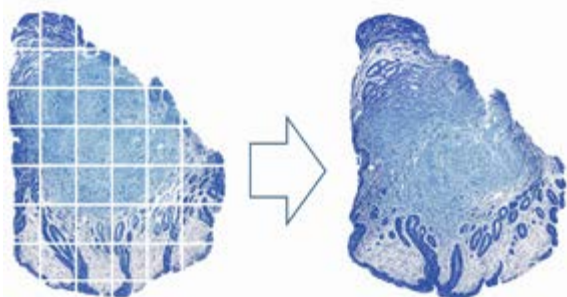
Unlock the full potential of your microscope with Olympus cellSens™, the intelligent imaging software designed to elevate your research. From straightforward image capture to complex image analysis, cellSens™ empowers scientists and lab professionals with an intuitive, customizable workflow that simplifies imaging while delivering robust, reproducible results.

Its intuitive interface enables seamless control over camera functions, allowing users to capture high-quality images with confidence. From single snapshots to intricate imaging across multiple dimensions—such as space, depth, time, and color—cellSens™ delivers reliable and reproducible results.



The adaptable software platform cellSens™ is available in three versions—Entry, Standard, and Dimension—ensuring that every user, from routine documenters to advanced researchers, can find a perfect fit for their specific needs.

- **cellSens™ Entry:** Ideal for routine tasks and documentation, with collaborative tools like Conference Mode for real-time sharing and annotation.
- **cellSens™ Standard:** Designed for fluorescence imaging, 3D acquisitions, multi-color overlay, and simple object counting.
- **cellSens™ Dimension:** The complete solution for advanced research, colocalization, automated analysis, and deep learning segmentation.



Did you know...?

... that you can use cellSens™ Dimension to stitch together wide-area images of whole tissue sections? These pictures can easily be generated from multiple images acquired in high magnification and corrected for small mismatches, enabling you to visualize the entire tissue section. Focus View makes it easy to correct for differences in tissue thickness as the image is acquired, eliminating the need for time-intensive Z-stacks.

SOFTWARE SOLUTIONS

Artificial intelligence (AI) is transforming the field of microscopy by enhancing precision, speed, and automating complex image analysis. Thus, improving accuracy in sample detection, and enabling real-time decision-making. By integrating AI, researchers and technicians can achieve deeper insights faster, reduce human error, and push the boundaries of what is possible in scientific discovery and diagnostics.

Enhance your microscopy with cellSens™ Dimensions TruAI™ feature!

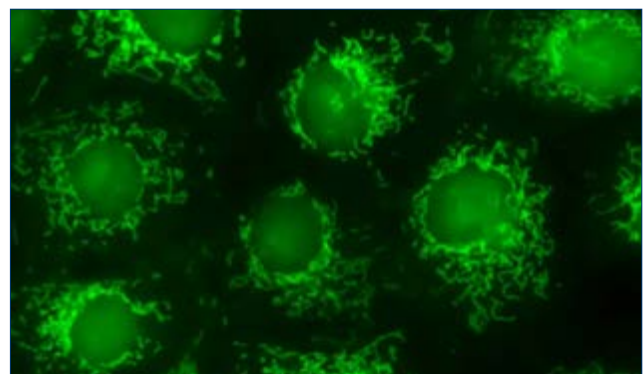
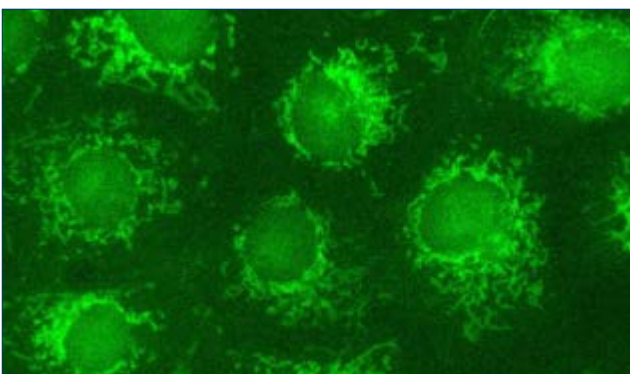
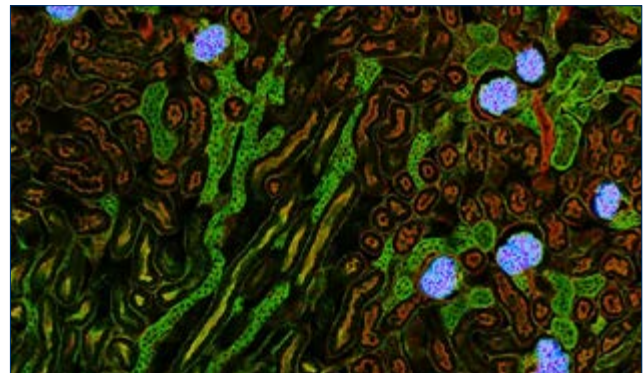
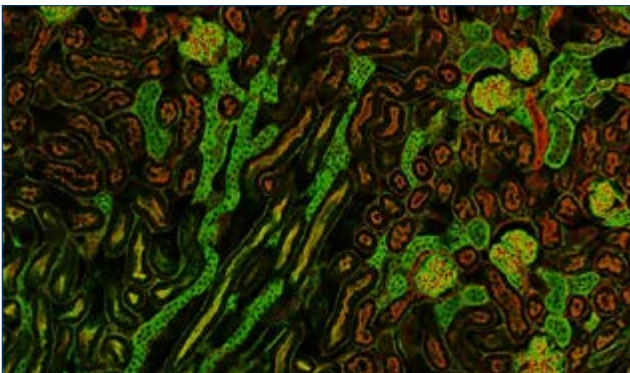
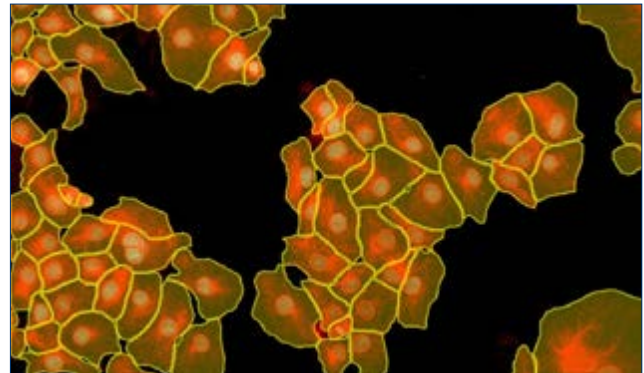
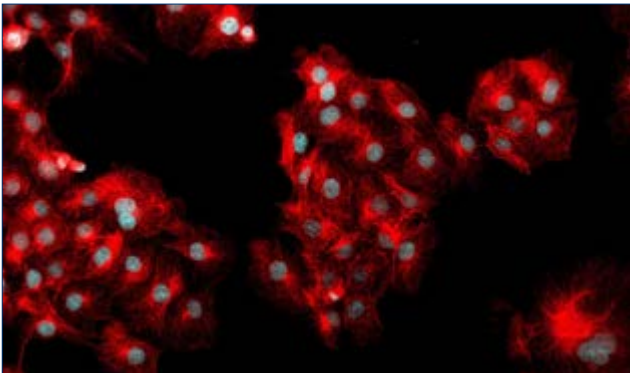
Experiments often require data from microscope images. For accurate image analysis, segmentation—especially thresholds based on intensity values or color—is used to extract the analysis targets from the image. But this can be time-consuming and affect the sample condition. TruAI™ technology's next-generation image analysis helps solve these challenges.

You can for example teach TruAI™ to immediately detect and segment a specific structure within your sample. The top image showcases how cellSens™ can easily separate cytoplasm (yellow mask)

from nuclei (cyan). This simple instance segmentation method requires no post-processing steps. You can also use cellSens™ TruAI™ to teach it to detect a specific structure within your sample, like showcased in the middle image featuring segmentation of glomeruli in mouse kidney tissues.

Lastly you can use cellSens™ Neural networks to pre-learn noise features, enabling the creation of high signal-to-noise ratio images, even with weak signals. Deep learning de-noising technology helps produce clear images quickly, even with high noise levels and short exposure times (bottom image).

EVIDENT
OLYMPUS



SOFTWARE SOLUTIONS

Flexible, modular, and robust hardware: The scan[®] screening station combines the modularity and flexibility of a microscope-based setup with automation, speed, throughput, and reproducibility. Deep-learning microscopy enables groundbreaking data analysis and evaluation.

Olympus scan[®] high-content screening station

scan[®] is a modular microscope-based imaging platform which provides fully automated image acquisition and data analysis of biological samples through deep-learning technology. The scan[®] high-content screening station can handle many sample formats, including multi-well plates, slides, or custom-built arrays. Its flexibility and open design make it equally adept at routine and advanced imaging applications. The system provides powerful data visualization, image

analysis and advanced data evaluation, enabling it to tackle a broad range of standard and tailored assays.

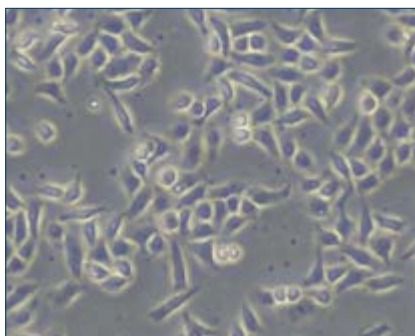
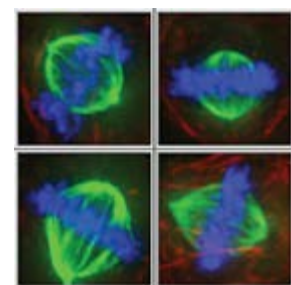
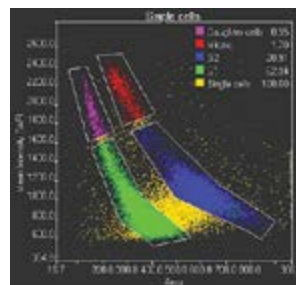
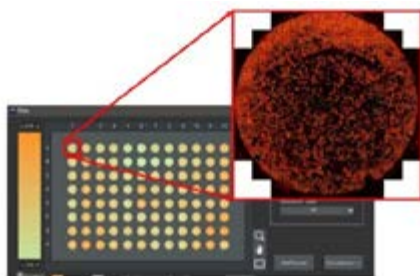
Using AI and deep-learning techniques, the system detects objects like cells or nuclei without user intervention. Powerful cytometry data analysis suits the specific demands of analysing high numbers of cells, with every data point traceable to the original image.

Highlights:

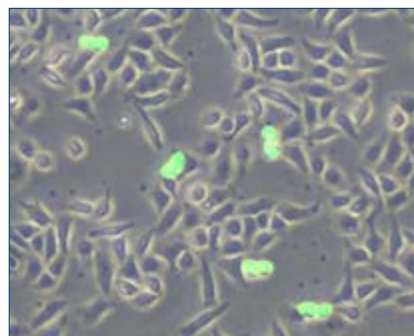
- Fast setup of quantitative methods
- Fully automated workflow
- TruAI™-assisted object detection and image enhancement
- Meets the needs of many assays
- Object detection and analysis
- Automated classification
- Deep-learning microscopy
- Immediate quality control

Typical applications include:

- (Trans-)Location/Transport
- Cell cycle assays
- Cell morphology
- Dynamic processes
- Tissue and whole organism assays



Prediction of mitotic cells using TruAI



Only dividing cells are detected



scan[®] handles fixed and live cells in a variety of plates and dishes

MICROSCOPY EQUIPMENT

Buch & Holm has a broad selection of microscopy equipment, including slides, storage solutions, immersion oils and beyond. Delve into our finest selection of microscopy tools, designed to enhance details in your microscope sample.

Microscope slides and coverslips from Epredia

Plain smooth slides without printed tab, Diagnostic slides and the Superfrost slide series (Superfrost, Superfrost PLUS and Superfrost PLUS adhesion). The slides are available in various colors and either flat or with finely ground edges. We also offer various thin glass coverslips from Epredia to suit every application. Our selection includes round, rectangular and square coverslips in a wide range of dimensions. See the full product range on our [website](#)



Forceps

Forceps are essential tools when manually preparing microscope slides. We offer a variety of forceps with flat or curved tips, regular or high precision.



Olympus IMMERSION OILS

At Buch & Holm, we offer premium Olympus immersion oils that enhance your microscope's oil objectives, revealing intricate details in your images, both regular- and silicone based. Our immersion oils boast low autofluorescence, ensuring fluorescence microscopy samples with an exceptional signal-to-noise ratio. See the complete range of Olympus immersion oils on our [website](#)



Storage for microscope slides

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