

Press Release



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New Standards in Fluorescence Stereomicroscopy

Leica Microsystems Combines FusionOptics™ with TripleBeam™

WETZLAR, GERMANY. The Leica M205 FA and M165 FC stereomicroscopes are Leica Microsystems' latest addition to its innovative M series for demanding fluorescence applications in developmental, molecular and cellular biology. The microscopes unite top performance zoom optics, resolution and contrast to produce brilliant fluorescence images with outstanding richness of detail.

New dimensions of fluorescence microscopy

Combining the revolutionary FusionOptics™ technology with the successful TripleBeam™ principle, the fully automated Leica M205 FA creates fluorescence images of exceptional quality. Used for the first time in the M series, FusionOptics™ (patent pending) takes advantage of a neurological phenomenon: The left beam path produces great depth of field, while the right beam path provides a high-resolution image. The



For image in high resolution, please contact:
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human brain itself then combines the best information from both channels, using it to compose an image whose resolution and depth of field have never been achieved in any stereomicroscope before. With its fully apochromatic optics, the largest zoom™ range on the market (20.5:1) and the top resolution performance of up to 1050 lp/mm, the Leica M205 FA is able to show the viewer details that used to be invisible.

The TripleBeam™ principle, with its patented third beam path reserved exclusively for fluorescence illumination, delivers evenly illuminated, reflex-free fields of view at all zoom settings. Besides this, the FluoCombi III™ objective revolver features the unique capability to exploit all the advantages of both stereo and high-resolution micro-objectives on one instrument with a simple switch. It enables parallax-free imaging from overview magnification to the finest detail. Time-intensive studies of living organisms and documentation of complex images series and multifuorescence images are made possible and

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instantly reproducible by motorizing focus, zoom, filter changer, iris diaphragm fluorescence intensity manager and microscope stage. An external SmartTouch™ control unit ensures convenient control of all microscope functions using a clearly arranged touch display and freely programmable control buttons.

The microscope is fully integrated in the modular software solutions Leica AF6000 E to AF6000. For documentation, image overlay and time series, the Leica AF6000 E is recommended as an introductory software package. This can be upgraded to the Leica AF6000 as necessary to suit applications ranging from multi-channel fluorescence, time and z series with parallax correction to 3D reconstruction.

Manual stereomicroscopy of the highest order

The Leica M165 FC continues the tradition of high-quality manual fluorescence stereomicroscopes. With this microscope, the classical stereo-optics approach has been exploited to the utmost optical limits. The fully apochromatically corrected 16.5:1 zoom – combined with TripleBeam™ and FluoCombi III™ – guarantees high-contrast fluorescence images down to the finest structures of the specimen. Encoded zoom, iris diaphragm and objective revolver allow configuration parameters and optical data to be reproducibly read out at the computer.

From preparation or manipulation of samples over screening and evaluation of genetic mutants up to high-resolution documentation and long-term studies of living models: with the new M series, Leica Microsystems offers a unique stereomicroscope system to fulfill the requirements of modern scientific research.

Leica Microsystems is a leading global designer and producer of innovative, high-tech, precision optical systems for the analysis of microstructures. It is one of the market leaders in each of its business areas: Microscopy, Confocal Laser Scanning Microscopy with corresponding Imaging Systems, Specimen Preparation, and Medical Equipment. The company manufactures a broad range of products for numerous applications requiring microscopic imaging, measurement, and analysis. It also offers system solutions for life science including biotechnology and medicine, research and development of raw materials, and industrial quality assurance. The company is represented in over 100 countries with 10 manufacturing facilities in 8 countries, sales and service organizations in 19 countries and an international network of dealers. The international management is headquartered in Wetzlar, Germany.