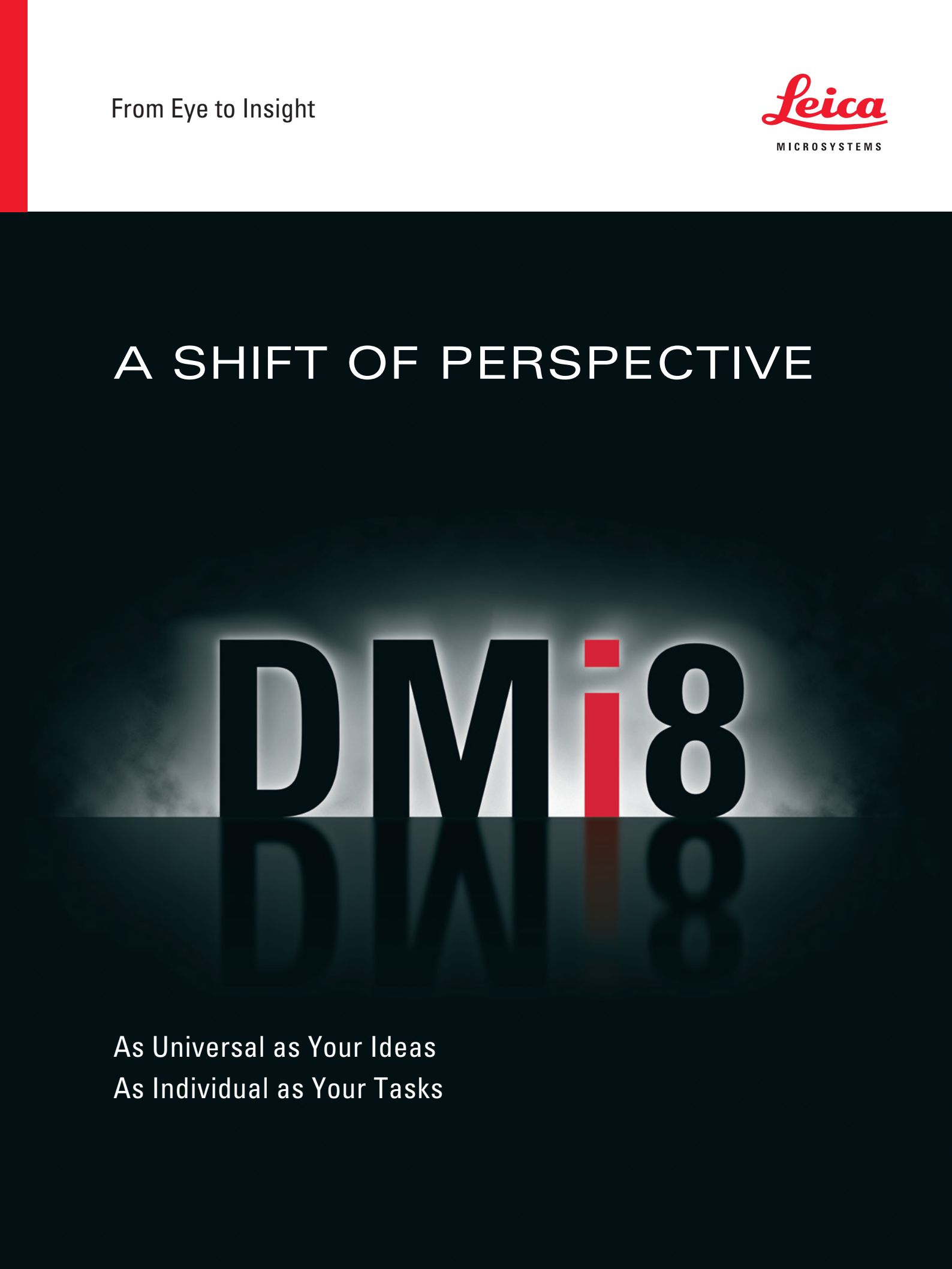
From Eye to Insight

Leica
MICROSYSTEMS

A SHIFT OF PERSPECTIVE



As Universal as Your Ideas
As Individual as Your Tasks

LEICA DMi8

INVERTED MICROSCOPE PLATFORM

Researchers know that a shift of perspective often leads to the most exciting insights. So do we. It is as universal as your ideas, and as individual as your tasks. Find out how a shift to Leica DMi8 will inspire your work.

One platform to match the future of life sciences
From basic microscopy to high-end imaging – Leica DMi8 grows with your ever-changing needs.

Infinity Port designed for flexibility
From observation to interaction – Leica DMi8 opens new dimensions for your research.

The solution for live cell experiments
From easy handling to sophisticated analysis – Leica DMi8 and LAS X software team up perfectly with your living samples.

"Life sciences are constantly evolving. At Leica Microsystems, we have created a unique platform that grows with researchers' needs. The Leica DMi8 tailor-made solutions leave preconfigured microscopes in the past."

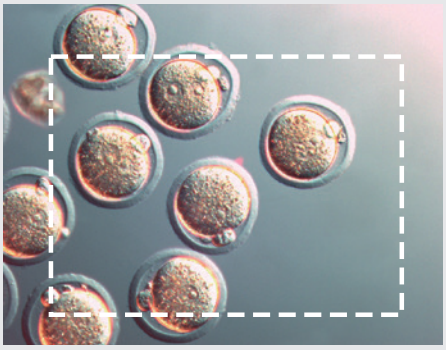
Julian Burke PhD
Chief Scientific Officer, Leica Microsystems

ENJOY THE FREEDOM OF CONFIGURATION – BE PREPARED FOR A BRIGHT FUTURE

No matter what type of samples you work with, no matter where your research is headed – Leica DMi8 will be there to assist you: ready to grow, ready to change, ready for brilliant results.

EASY ON YOUR BUDGET – EASILY UPGRADEABLE

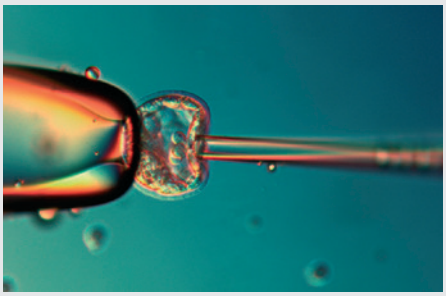
The Leica DMi8 takes you beyond configuration restrictions. With the freedom of a completely modular system, you can create the perfect system for your research. For 3D images, you can integrate a motorized focus into a manual system. Or if you want multi-color images, start with a motorized filter wheel and manual focus. With hundreds of possible combinations, you can create the best solution for your work.



Comparison of 19 mm FOV with standard 16 mm camera ports (dotted line).
Courtesy of IGBMC, Strasbourg, France

FANTASTIC OPTICAL QUALITY OPTIMIZED FOR SCMOS CAMERAS

Do you want to see more of your sample with high resolution? We enlarged the field of view (FOV) for all camera ports. Optimized for state-of-the-art sCMOS cameras, the Leica DMi8 has 19 mm FOV. The full range of contrast techniques is available: from Brightfield, Integrated Modulation Contrast, and Phase Contrast to Darkfield, Differential Interference Contrast (DIC), and Fluorescence. Take advantage of high quality imaging options for your precious sample.



Blastocyst injection.
Courtesy of IGBMC, Strasbourg, France

MICRO-MANIPULATION SOLUTIONS

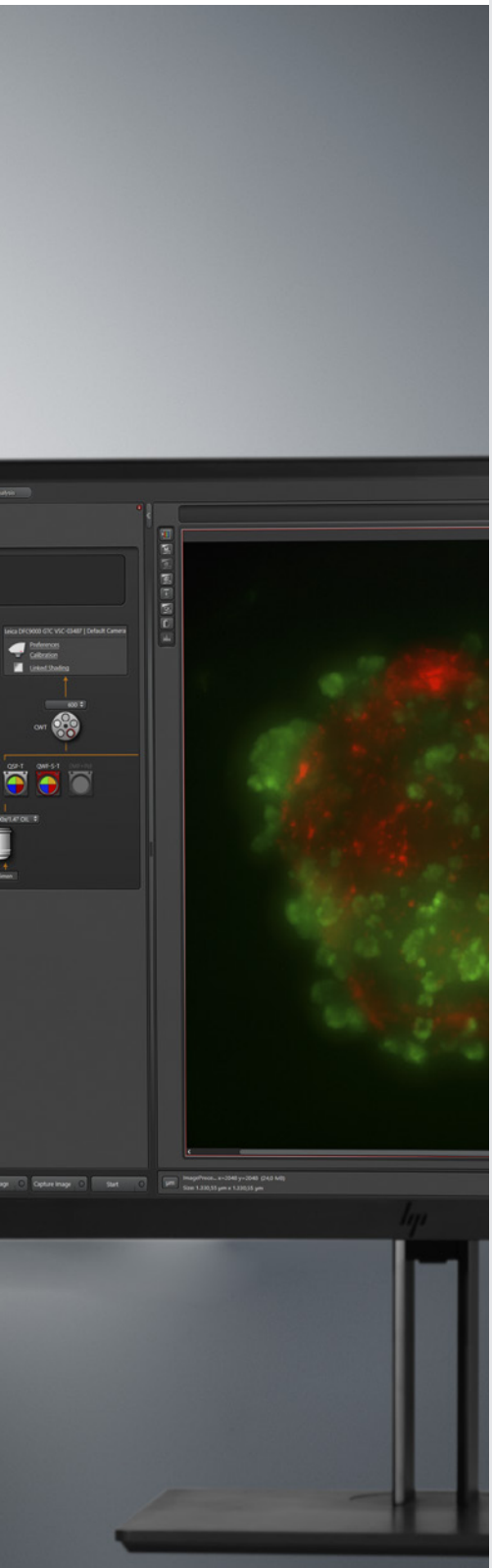
Extend your capabilities. The Leica DMi8 works with systems from Eppendorf, Narishige, Research Instruments and others.

Leica LAS X software, Easy Operation Mode

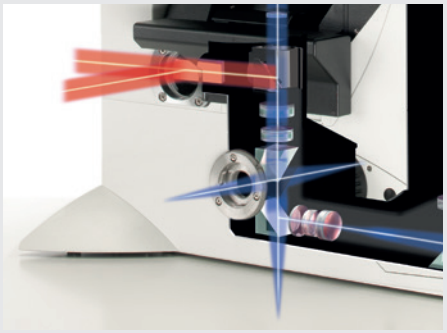
INTUITIVE OPERATION

The Leica DMi8 and LAS X are designed to support you. All interfaces are easy to navigate, giving you better results in a shorter time than ever before.

DISCOVER THE INFINITE MANIFESTATIONS OF LIFE – UNFOLD THE STORY OF YOUR CELLS



The Leica DMi8's new core element, the Infinity Port, is the answer to the dynamic nature of science. It provides access to a wide range of functions for direct interaction with your sample – meeting the trends in life sciences.



The new Infinity Port (shown in red)

THE INNOVATIVE INFINITY PORT

Open to even more possibilities, the Leica DMi8 features an additional incident illumination port. The Infinity Port provides great flexibility for your future applications.

This novel design facilitates the integration of additional fluorescence light sources and laser systems for advanced applications like FRAP, photo-switching, ablation, optogenetics, tweezing, and many more.

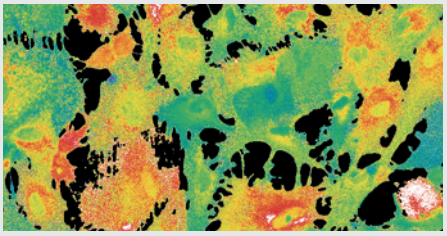
20 nm precision for a 12 mm travel range

NEW LEICA DMi8 FOCUS DRIVE

The Leica DMi8 features a new Closed Loop Focus with 20 nm positional accuracy. Combined with an increased travel range of 12 mm, the Leica DMi8 offers high precision 3D image reconstruction of large tissues and complete organisms. Get high quality data with unprecedented accuracy with this innovation.

CALCIUM IMAGING

The Leica DMi8 offers a dedicated system for FURA2 imaging. New objectives combine high NA and UV transmission of up to 60 % at 340 nm. Along with extremely fast external filter wheels (24 ms switching time) the system is perfectly equipped for capturing fast dynamic processes like calcium measurements.



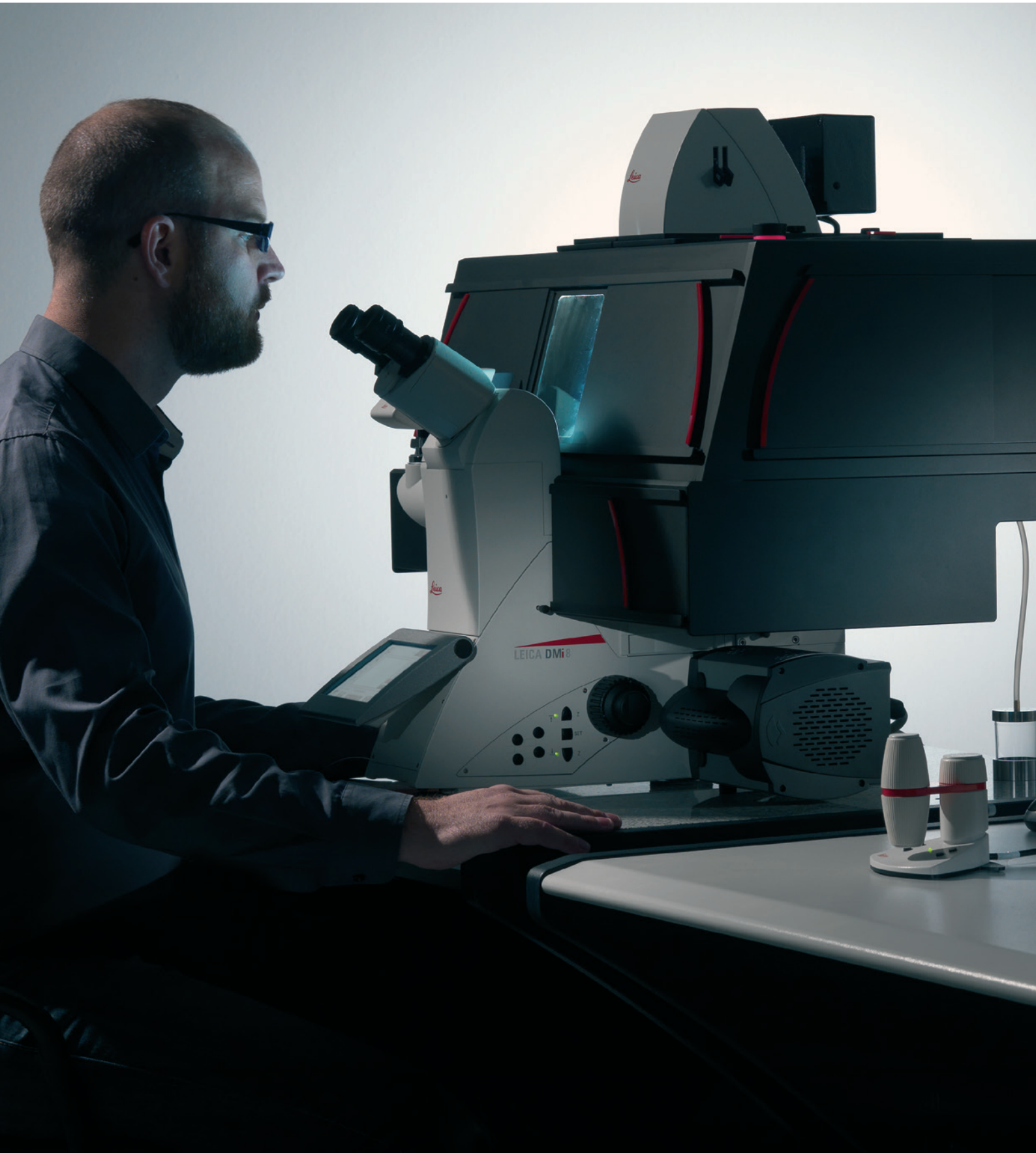
Courtesy of Drs. Kazunori Kanemaru and Masamitsu Iino, The University of Tokyo, Japan

HIGH-SPEED IMAGING

To understand dynamic processes in live cells, multidimensional data must be captured at the speed of life.

Control all processes simultaneously with the Leica DMi8 sequencer. Integrate light sources and state-of-the-art sCMOS cameras with µs speed and accuracy. For simultaneous multi-channel image acquisition, use the Dual-View Image Splitter. With so many possibilities find the best solution for your high speed application, all integrated in LAS X software.

CREATE YOUR OWN LIVE CELL ENVIRONMENT – SEE WHAT LIES AHEAD



The Leica DMi8's infinite capacity for seamless integration makes it easy to control the parameters of your live cell experiments. Obtain highly reproducible data to gain deeper insight into life.

PLEASANT ENVIRONMENT

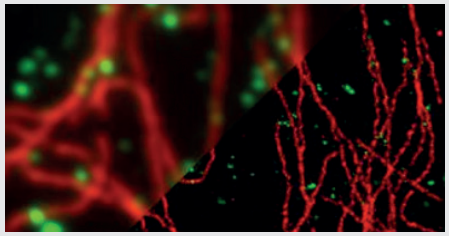
Keeping cells happy is the most challenging and important task in live cell experiments. With Leica DMi8, all environmental parameters are controlled via LAS X and are linked to the image acquisition. Unique features, such as "start experiment when the right environmental conditions are reached," eliminate the occurrence of artifacts.

INTUITIVE AND VERSATILE SOFTWARE

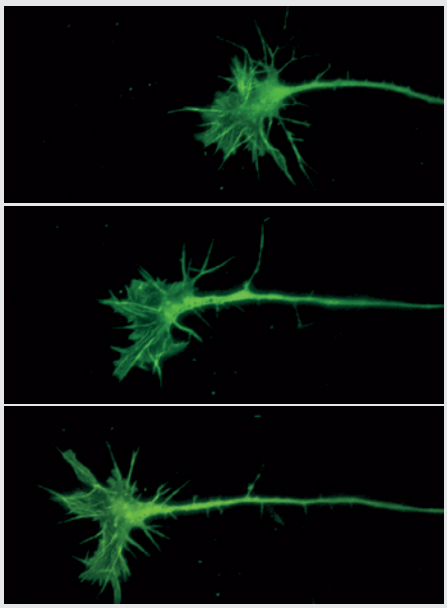
The new LAS X combines powerful software functionality and great ease-of-use. in one package, yet maintains usability in all aspects of the interface, functions and workflow.

- Dedicated acquisition and hardware implementation
- Analysis of multi-dimensional data sets
- Advanced environmental control

Monitor your experiment anywhere at any time with Mobile Connection from Leica Microsystems



Leica DMi8: platform for leading super resolution systems like GSD 3D and STED 3D.
Courtesy of S. Hell, Max-Planck-Institut for Biophysical Chemistry, Göttingen, Germany

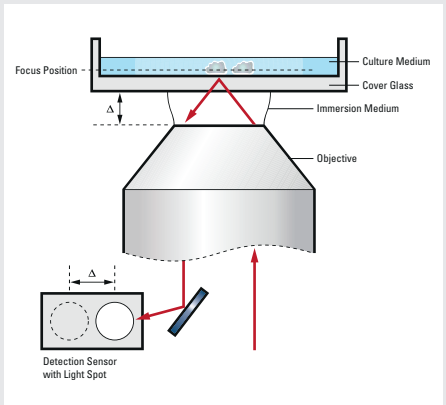


Chick DRG neuron (green: Actin, YFP).
Courtesy of Kazumasa Ohashi, Tohoku University, Japan

NEVER FOCUS AGAIN

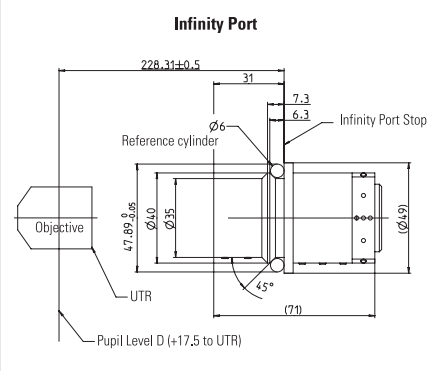
Save time searching for your cells and eliminate photo-toxicity from fluorescent light during focusing. Strong temperature shifts, long distance stage movements: your image remains constant.

One click of a button and the LED light beam assisted Leica Adaptive Focus Control (AFC) automatically maintains your focus, in real time.



BUILD ON THE OPEN MICROSCOPE PLATFORM – ADAPT IT TO YOUR SCIENCE

Maximum flexibility, functionality and innovation are the top priority for your research. Leica Microsystems partners with industry-leading companies, and with you.

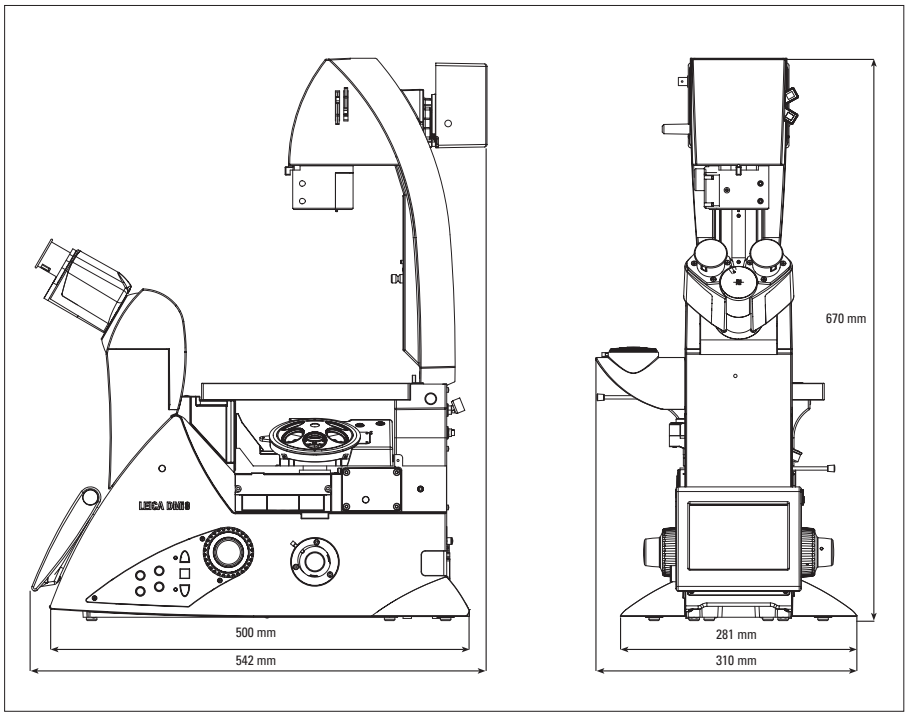


Opto-mechanical documentation of the Infinity Port

CREATE YOUR OWN LEICA DMi8

The Leica DMi8 and LAS X are designed for seamless integration of external devices. Leica Microsystems invites you to create your own version of the Leica DMi8. The Infinity Port Connector, along with complete optomechanical design documentation, opens the light path to any accessory you want to add.

Attach Thorlabs Cage Systems or Linos Microbench or Nanobench components directly to the Leica DMi8 by simply adding them to the Infinity Port Connector.



Discover more DMi8 configurations:
www.leica-microsystems.com/thunder

CONNECT
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