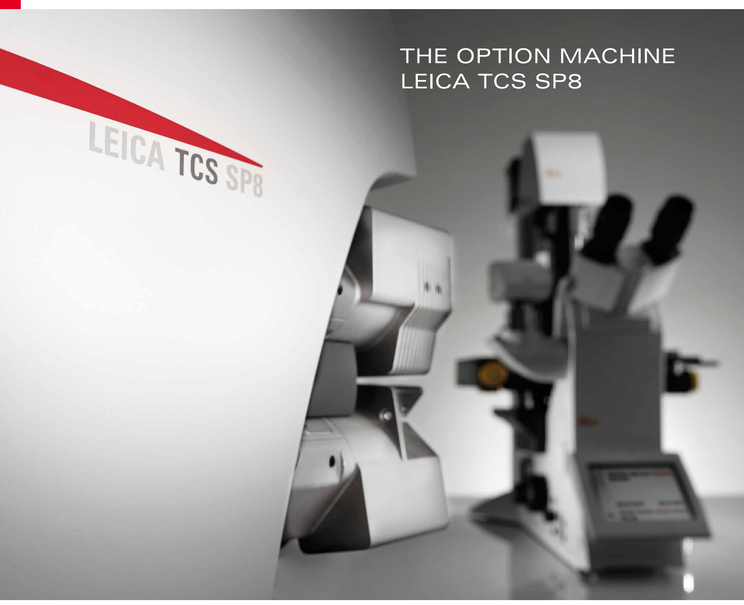
Leica MICROSYSTEMS



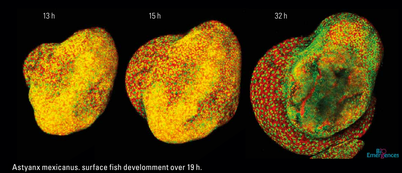
THE OPTION MACHINE LEICA TCS SP8

Paramecium aurelia.
Courtesy of Anne Aubusson-Fleury, CNRS, Gif-sur-Yvette, France.

DETECT FLUORESCENCE WITH MORE SENSITIVITY

Synergies of multiband spectral detector, acousto-optical beam splitter (AOBS) and super-sensitive Leica HyD hybrid detectors offer you

- maximum photon efficiency and gapless spectral detection
- high signal-to-noise ratio to render the finest details from any specimen
- superior sensitivity
- viability of live specimens

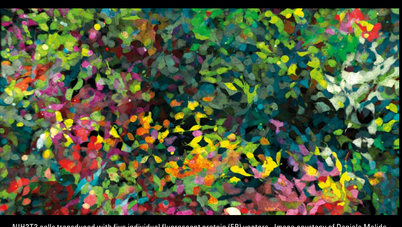


Astyanx mexicanus. surface fish development over 19 h.
Sylvie Retaux, Hélène Hinaux, Gaëlle Recher, CNRS, Gif-sur-Yvette, France.

CAPTURE THE DYNAMICS OF LIVING CELLS

Using the Leica TCS SP8 for imaging of living specimens means reliable results by

- light efficient detection
- high speed scanning
- convenient, advanced live imaging
- highest fidelity and viability for your specimens

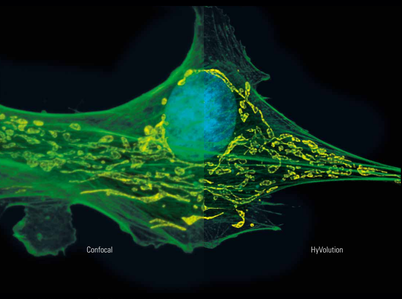


NIH3T3 cells transduced with five individual fluorescent protein (FP) vectors. Image courtesy of Daniela Malide, NIH Bethesda, MD USA.

IMAGE MORE COLORS

When it comes to challenging multicolor experiments the Leica TCS SP8 offers

- the spectral freedom to image any kind of dye combination
- the easy exploration of cell connectivity using Brainbow fluorescent proteins



High-resolution imaging. Confocal vs. Hyvolution.
Fluocells #1. Molecular Probes.

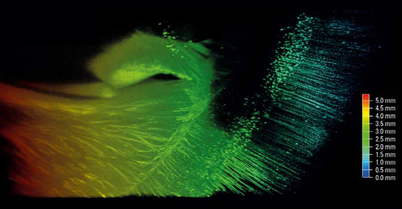
NEW DEGREES OF RESOLUTION

Push the limits of confocal imaging using the Leica TCS SP8 with HyVolution and achieve

- resolution down to 140 nm
- super-sensitive imaging using HyD detectors combined with Huygens deconvolution
- crisp multicolor images, which convey details in high fidelity

Leica TCS STED 3X offers you a new dimension in super-resolution

- details resolved down to 30 nm
- pure physics, more reliablity: what you see is what you get
- life revealed in 3D
- colocalization studies with multicolor super-resolution



Non-sectioned Thy1-YFP mouse brain tissue treated with CLARITY. Courtesy of Karl Deisseroth and Raju Torner. Stanford University, Paolo Alto, CA, USA. Reprinted by permission from Macmillan Publishers Ltd: Nature 497, 332–337, copyright 2013.

A CLEAR VIEW IN DEPTH

Observe transparent tissues using the Leica TCS SP8 with dedicated objectives for clearing techniques

- identify spatial arrangements and connections of cells and tissues
- identify neuronal circuits
- record images in maximum depth and at highest resolution with the Leica HC FLUOTAR L25x/1.00 IMM motCORR Visir objective

Coronar section of mouse nasal cavity.

EXPAND YOUR FIELD OF VIEW

Stitching (mosaicking) with the Leica TCS SP8 allows you to

- image large specimens that are too big for a one shot record due to the largest field of view in any poimt scanning system
- avoid stitching artefacts in your images due to the homogenious field illumination of the scanner
- preserve every detail of your specimens with high resolution confocal