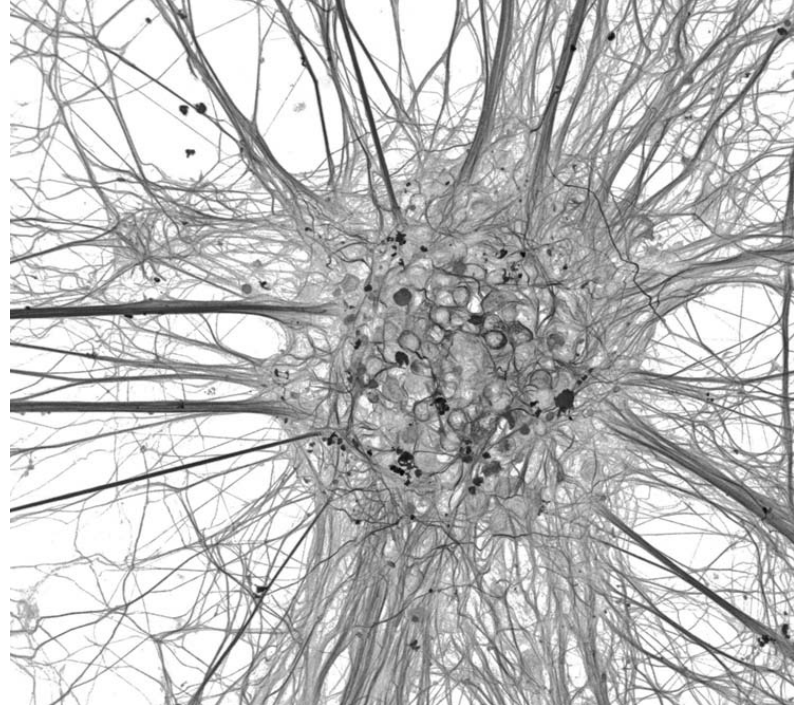
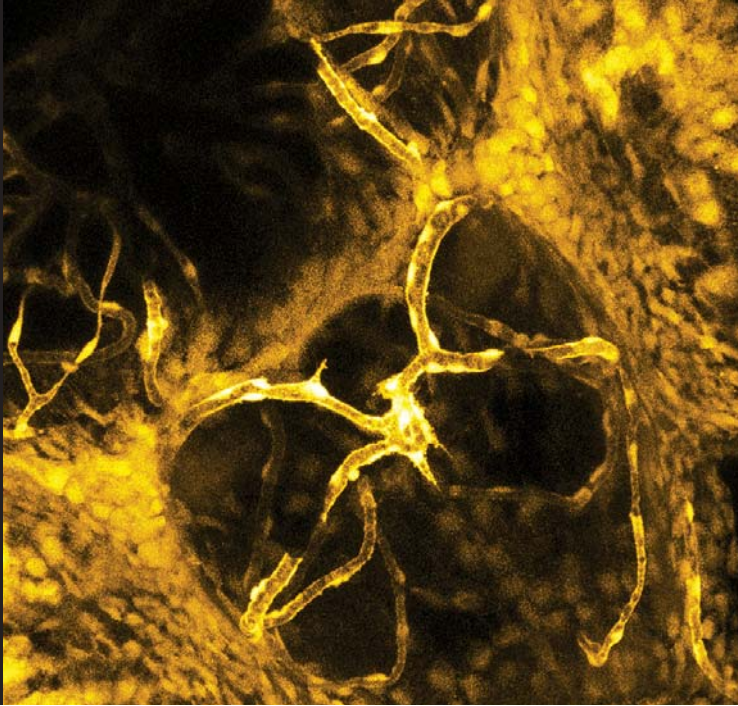


Living up to Life

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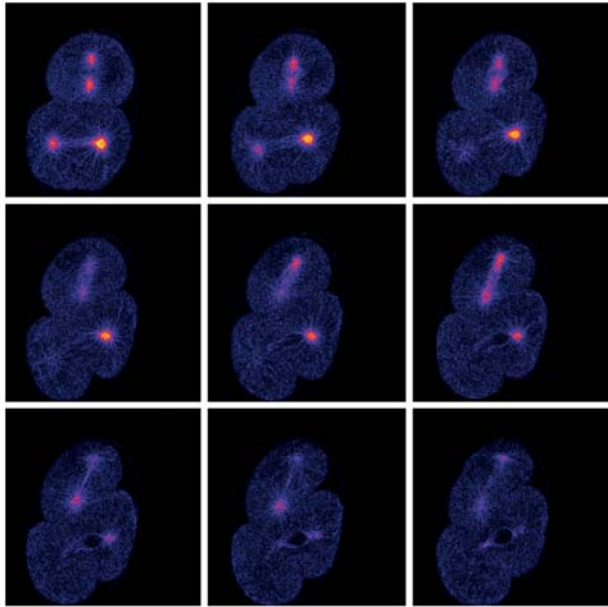
Leica HyD™

All-Purpose Super-Sensitivity

- › Multi-spectral detection for diverse applications are possible using Leica's SP detection concept with adaptive dynamic range for each channel
- › Reduced light dosage improves cell viability due to high sensitivity, which results in lower laser power
- › Extraordinarily fast pulse response is ideal for high-speed imaging
- › Quantitative through single photon counting giving access to molecular stoichiometries
- › Descanned or non-descanned detector available for multi-spectral imaging or deep tissue analysis

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LEICA TCS SP8 WITH LEICA HYD™. YOUR ROAD TO SUPER-SENSITIVITY.

Innovation is a driving force for discovery. New areas can be uncovered by new methodologies. Leica HyD™ sets a new standard in super-sensitive imaging. It is no longer necessary to compromise. Photon counting or imaging? Low light or bright fluorescence? High speed or crisp images? With Leica HyD™ you can do it all.

Go live with high definition

High speed and great image quality – in the past these two conflicted with each other. Leica HyD™ avoids all of the artifacts inherent to PMTs or GaAsP PMTs leading to crisp and clear images. Introducing a highly sensitive detection system (about 2x more quantum efficiency at 500 nm compared to typical photomultipliers) with low noise and rapid response results in sharp images conveying every detail at high fidelity.

A viable solution

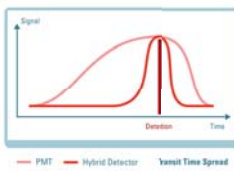
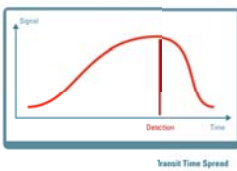
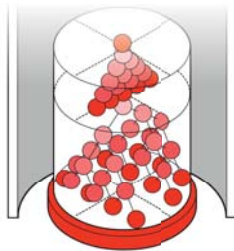
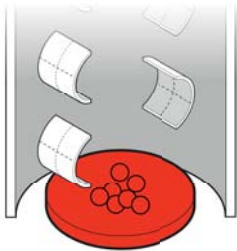
Live cell imaging tends to suffer from inherent phototoxic effects. While many of the underlying mechanisms have been well understood, the effect of phototoxicity can be hard to pin down in the biological system being studied. High sensitivity directly translates into reduction of light dosage which reduces free radical concentration or photobleaching. Even delicate systems, such as yeast or worms, are accessible to Leica HyD™ detection – at full confocal resolution.

Rapid detection for all purposes

Unlike PMTs, which intrinsically have a longer time-of-flight for photoelectrons, Leica HyDs generate ultra-short pulses. In combination with rapid sampling electronics at a 640 MHz rate, this allows precise photon counting with everyday samples. Quantitative imaging now becomes the standard for your research.

Broaden your scope

Many other highly sensitive detectors, such as traditional GaAsP photomultipliers, can age quickly and lose sensitivity. Due to its hybrid photo-detector design, the Leica HyD's photocathode and downstream amplifying elements remain sensitive. Techniques borrowed from silicon chip manufacturing, and a simplified geometry, combine to produce perfectly smooth internal surfaces that are more robust. This long-term stability ensures brilliant images without compromise whenever you use your confocal instrument.



LASER RADIATION
 VISIBLE AND INVISIBLE - CLASS 3B
 AVOID DIRECT EXPOSURE TO BEAM
 < 500mW 350-700nm
 IEC 60825-1: 2007

LASER RADIATION
 VISIBLE AND INVISIBLE - CLASS 4
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED RADIATION
 P < 4W 350-1600nm > 80fs
 IEC 60825-1: 2007