CrestOptics

X-Light V2
Spinning disk confocal

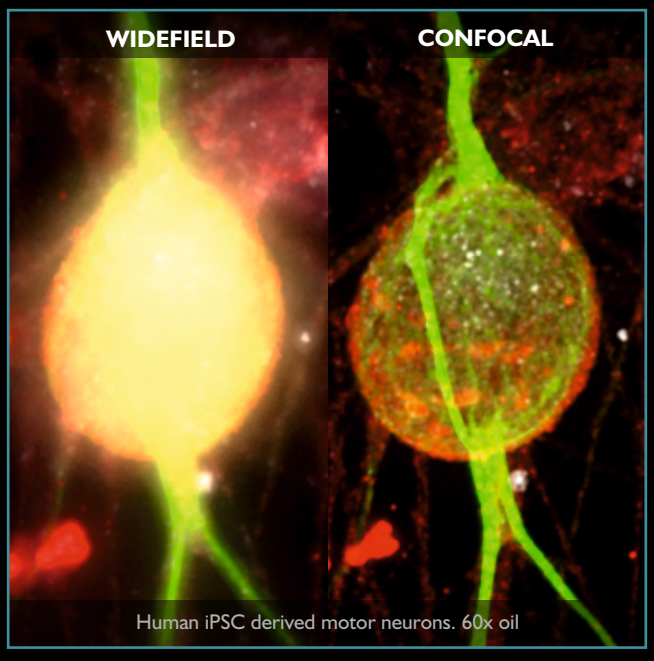
UNIVERSAL PLUG-IN SPINNING DISK
FOR FAST AND GENTLE IMAGING

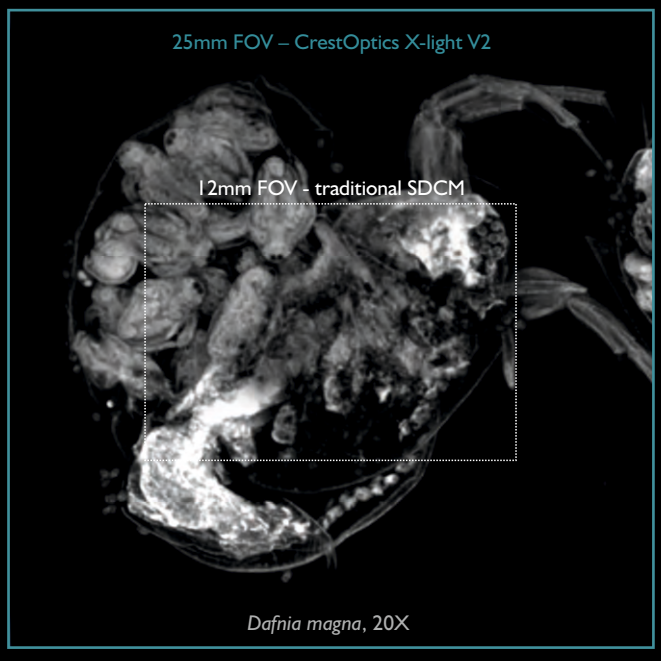
Accelerate the research process…

To guarantee each laboratory greater productivity without compromising the data quality, CrestOptics has created the **X-Light V2**, the most accessible spinning disk solution for fast and gentle confocal imaging,

The spinning disk allows a fluid widefield/confocal transition providing the **true Z optical sectioning in one-click.**

The wider FOV up to 25mm translates into **more information** collected and **less tiles** required to cover a large specimen.





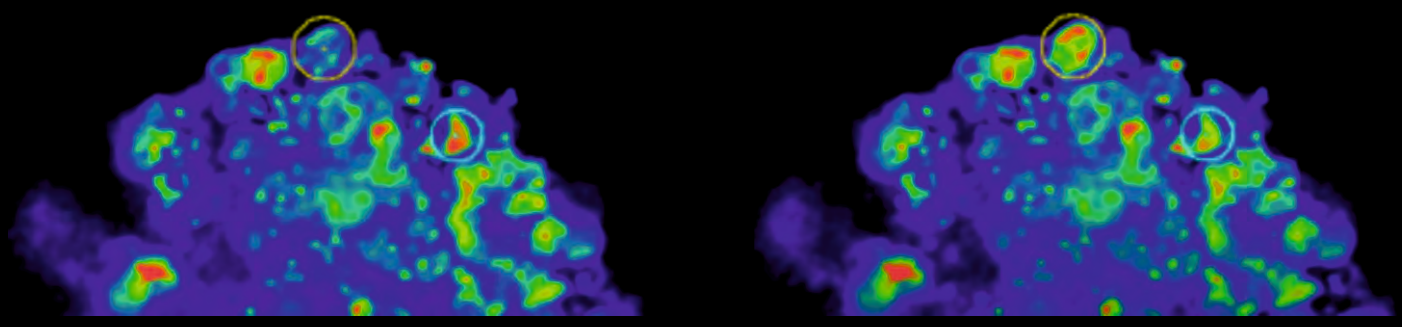
The X-light V2 is a truly enabling technology where the high-performance is combined with the **application flexibility and a universal compatibility** with any upright and inverted microscopes with a camera port.

CrestOptics offers the freedom to choose the **disk geometry that best suits the application** (i.e., deep imaging, fast live imaging).

With the perfect match with pinhole size and high light throughput the X-light V2 can be coupled with **LED and LASER** light source.

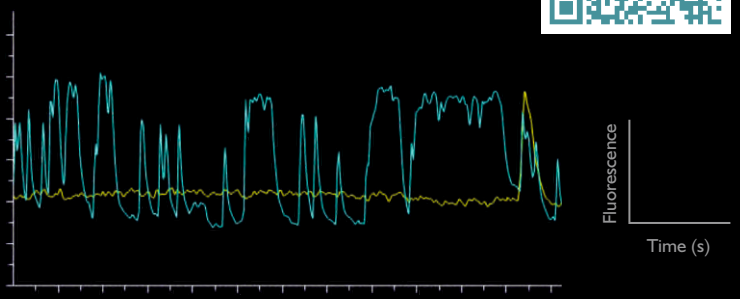
Custom-designed lenses are optimized to perform with a wide range of wavelengths **from UV to near NIR** to use a large variety of fluorophores.

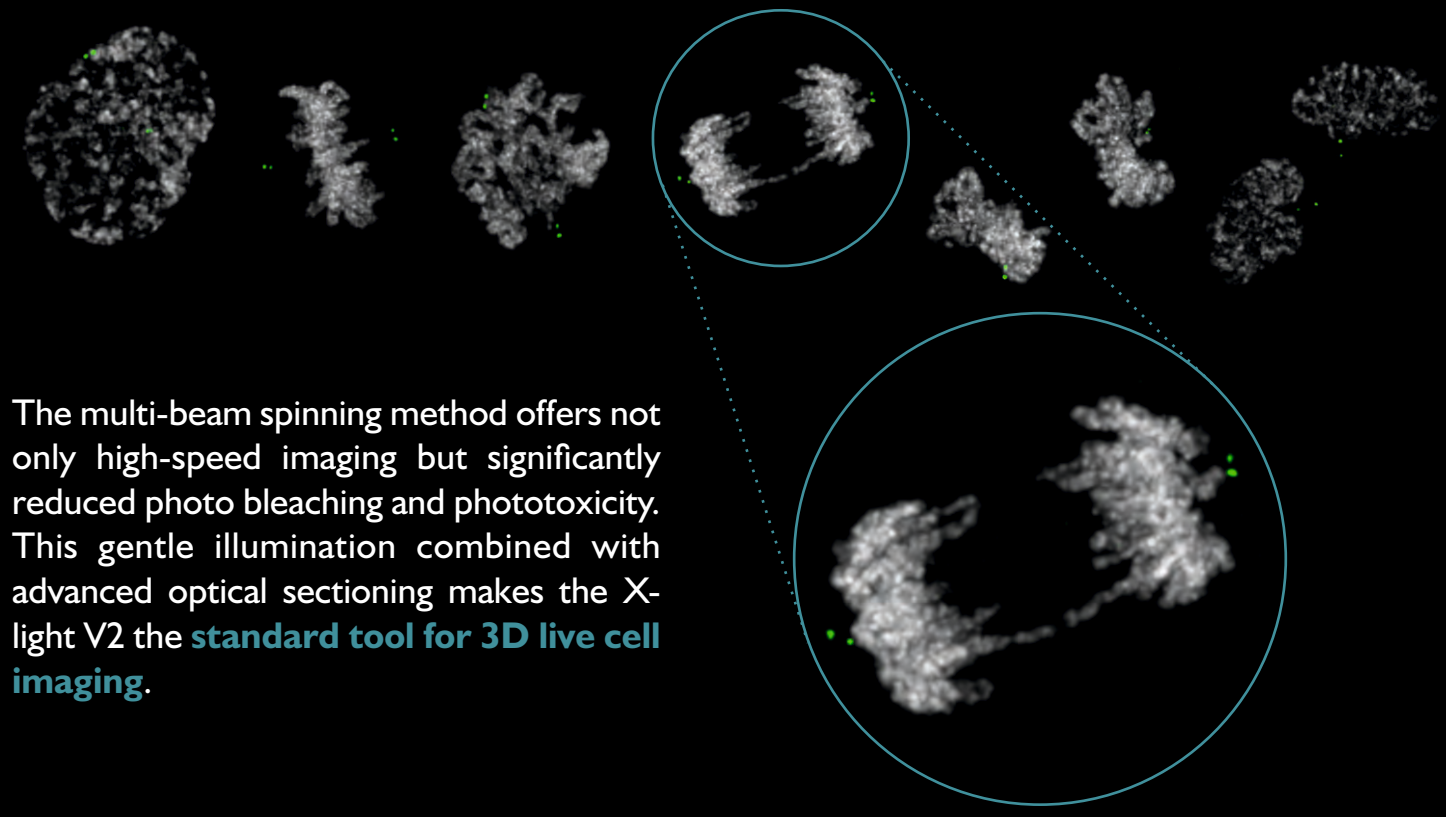
taking care of your samples



Fast live imaging of Ca2+ flux in β-cells of pancreatic islet triggering glucose-regulated insulin secretion. 60X oil objective.
The graph below shows representative Ca2+ traces of active cells expressed as fluorescence fluctuations over time.
Scan the QR code to watch the full video

The X-light V2 enables researchers to routinely perform challenging live-imaging experiments for extended periods of time. The highest spinning disk rotation on the market allows to follow ultra-fast cell dynamics with an **acquisition speed of over 1000 fps on full FOV**.





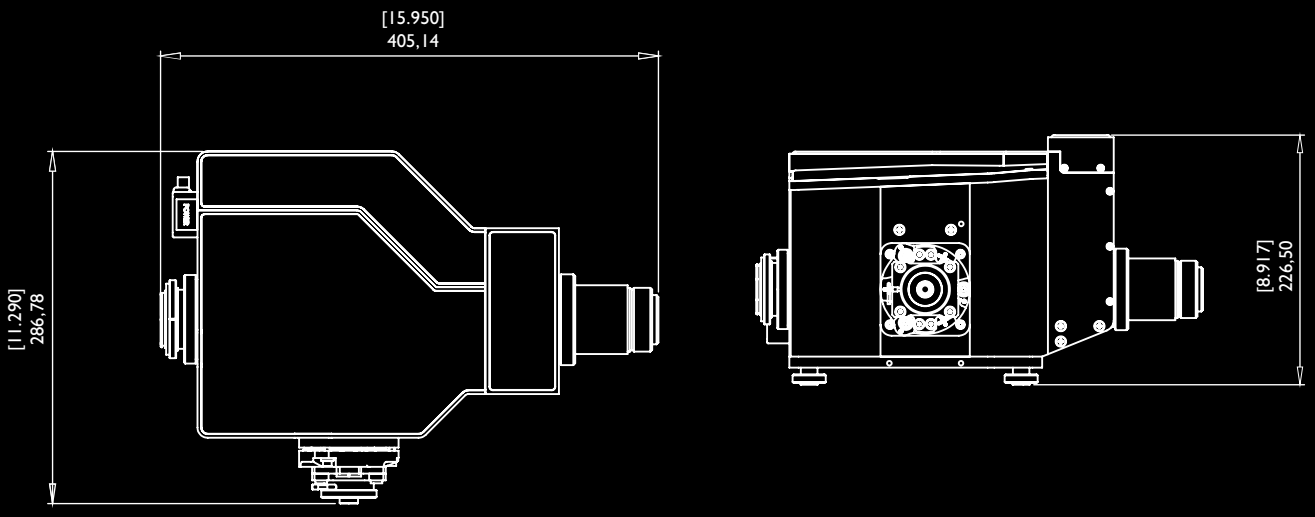
The multi-beam spinning method offers not only high-speed imaging but significantly reduced photo bleaching and phototoxicity. This gentle illumination combined with advanced optical sectioning makes the X-light V2 the **standard tool for 3D live cell imaging**.

RPE1 cells stably expressing CETN1-GFP (green) undergoing mitosis in treated conditions. SiR-DNA is shown in white.
LED illumination, 100x 1.45 NA oil objective. 3D time-lapse of16 hours. MIP 25 z-slices collected in 600nm Z step.
Scan the QR code to watch the full video.

Specifications

Imaging modalities	Widefield / Confocal
Compatible microscopes	Full range of upright and inverted microscopes
FOV	Up to 25mm diameter
Light Source	LASER with 1,5mm SMA | LED with 3mm LLG
Spectral range	Excitation 400-750 nm / Emission 400-850 nm Excitation 400-1000nm/Emission 400-1000nm (X-light V2 VIS-NIR edition)
Camera	Compatible with CCD/EMCCD cameras and sCMOS cameras
Disk speed/scan rate	15000 RPM / > 1000 fps
Spinning disk geometry (diamater/spacing)	50/250 slit for high throughput & live imaging applications 50/250 μm pinholes optimized for LASER light source 60/220 μm pinholes optimized for LED light source Custom geometry and double pattern disks available on demand
Resolution	Lateral Resolution (FWHM): ~230 nm (High NA 1.4) Axial Resolution (FWHM): ~600 nm (High NA 1.4)
Filter wheels	Motorized filter wheels: 4-positions cleanup filter wheel, 3-positions dichroic filter wheel, 8-positions emission filter wheel.
Software	Nikon NIS-Elements / Micro-Manager / MetaMorph / Volocity / VisiView
Recommended Installation Conditions	Temperature 23 ± 5°C, Humidity 70% RH or less (no condensation)
Weight	11.0 Kg (24.3 lbs)
Dimensions	11.2 (w) x 15.9 (L) x 8.9 (h) inches | 286.7 (w) x 405.1 (L) x 226.5 (h) mm

Layout



WARNING TO ENSURE CORRECT USAGE, READ THE CORRESPONDING MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.

CrestOptics S.p.A.
Via di Torre Rossa 66, 00165, Roma (RM)
www.crestoptics.com
Tel. +39 06 6147496

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