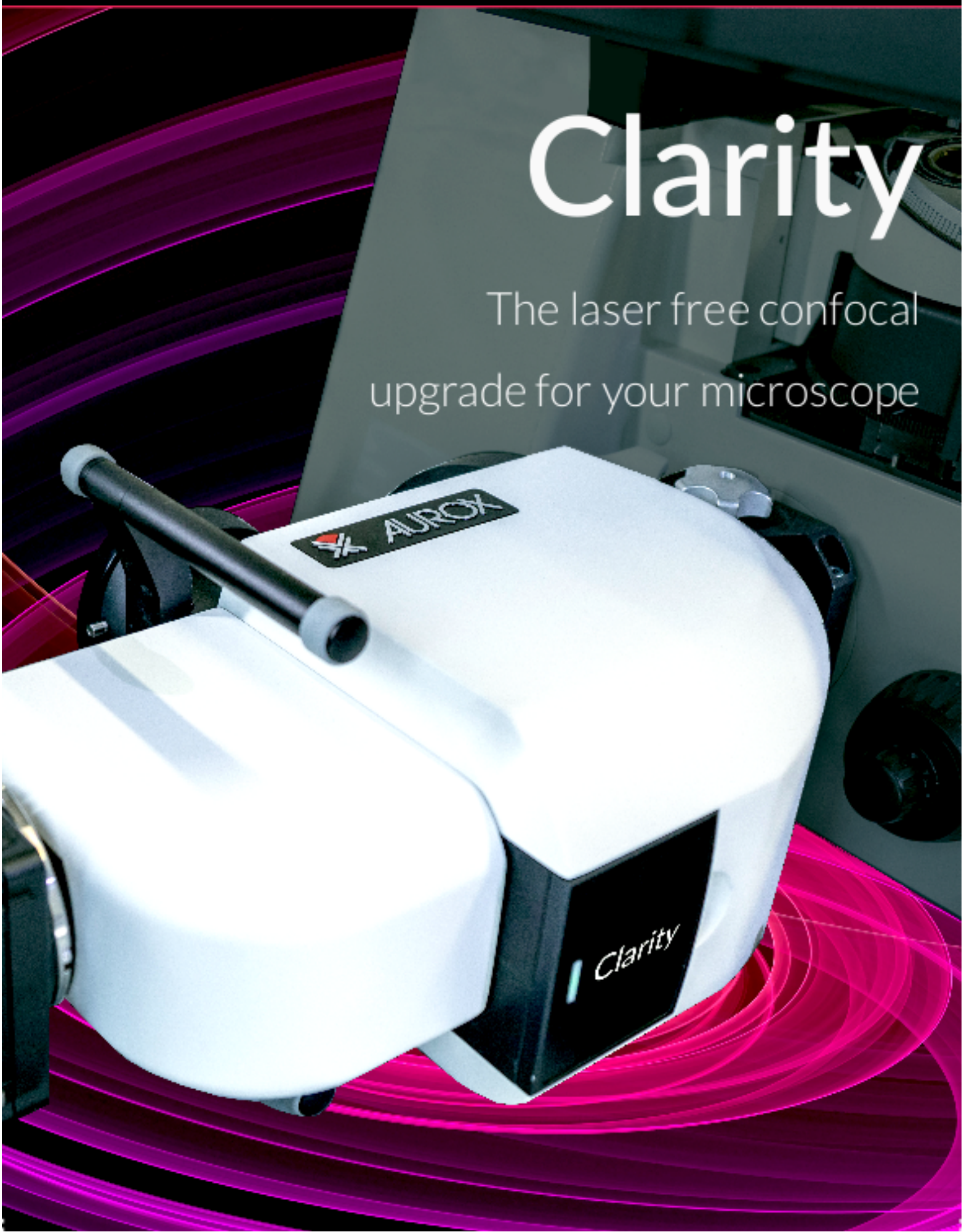
AUROX LASER FREE CONFOCAL

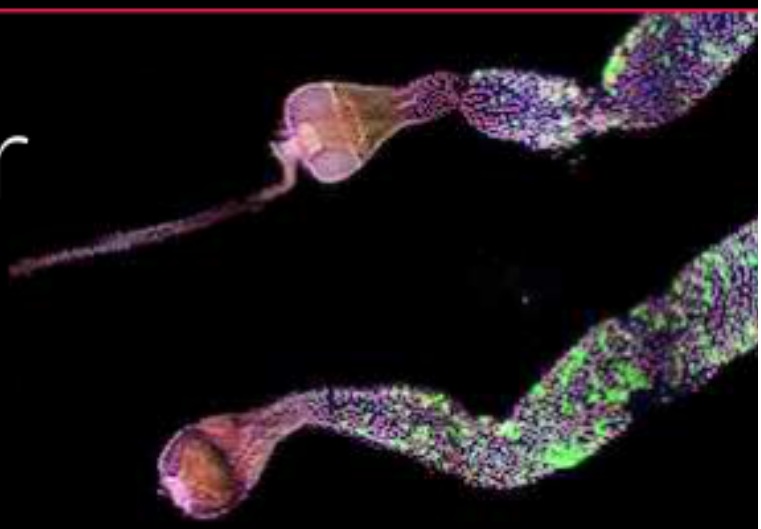
Clarity

The laser free confocal

upgrade for your microscope



Discover **Clarity**



Introducing the Aurox **Clarity**, the compact, easy and affordable route to laser-free confocal imaging using your existing fluorescence microscope.

Designed to fit virtually any microscope, **Clarity** uses Aurox's patented structured illumination technology and a spinning disc to achieve high resolution, high quality confocal images, fast, easily and affordably.

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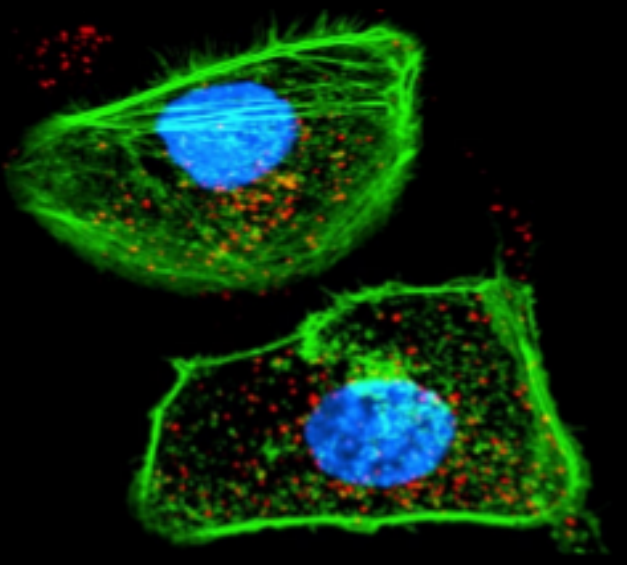
Apply **Clarity**

Drosophila mid-gut tile scan image.

Dr Jaakko Mattila
University of Helsinki

Clarity's unique combination of extended spectral range (370-750 nm) and high speed imaging with low photo-bleaching and low photo-toxicity makes it suitable for fixed and live specimens and allows its application to a wide range of research, including:

- Immunofluorescence
- Developmental biology
- Mycology
- Electrophysiology
- Embryology
- Plant biology
- Cell biology
- Micro-fluidics
- Drug discovery



Poly(glycerol sebacate) nanoparticles for encapsulation of hydrophobic anti-cancer drugs.

Prof Bruno de Geest
Ghent University

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Explore **Clarity**

Clarity packs 15 years of Aurox confocal microscopy and optical technology into the World's most compact, high performance confocal imager.

CAMERA DETECTOR PORT

Clarity can be directly coupled to a wide range of modern large field of view sCMOS and CCD detectors, including:

- Hamamatsu ORCA Flash 4.0 V3
- Andor Zyla 5.5 USB3
- Photometrics Prime 95B
- PCO Edge 5.5 USB3

USER EXCHANGEABLE FILTER CUBES

Clarity incorporates an internal 4-position filter cube turret, accessed via an external door. The turret accepts Aurox's combined emission and excitation filter cubes which are user exchangeable and quick and easy to replace without tools.

A wide range of Aurox filter cubes are available to cover the commonly used bandwidths. Custom filter cubes are available for specific research applications.

LIGHT SOURCE PORT

Clarity can be connected directly or *via* a light guide to a wide range of LED or metal halide light sources. **Clarity** is free from laser safety restrictions and benefits from low photo-toxicity, low-bleaching, low maintenance and low cost of ownership.

LASER FREE CONFOCAL SPINNING DISC

Clarity uses Aurox's patented structured illumination spinning disc technology. This is based on a grid pattern which allows up to 50% more light through than traditional (Nipkov) pin-hole designs. The results are high resolution, high quality confocal images collected fast and without the need for lasers.

Each disc has 3 grid pattern sizes affording 3 sectioning modes and thereby image optimisation for resolution or speed.

MICROSCOPE C-MOUNT PORT

Clarity has a standard microscope C-mount connector and a range of coupling adaptors / spacers to fit historical and new microscope models from all major manufacturers.

CLARITY^{HS} - HIGH SPEED (OPTION)

A high speed, **Clarity**^{HS} version is available featuring a 10 ms minimum exposure. The **Clarity**^{HS} provides up to 100 frames per second full frame video capture, making it ideally suited for higher resolution 3D time lapse imaging.

Clarity^{HS} requires an appropriate camera and computer to operate in high speed mode.

WINDOWS 10 CONTROL COMPUTER

Clarity is typically delivered with an instrument control computer installed with the Aurox **Visionary** software. The computer is connected by USB2 and can be either a compact NUC or a Shuttle PC.

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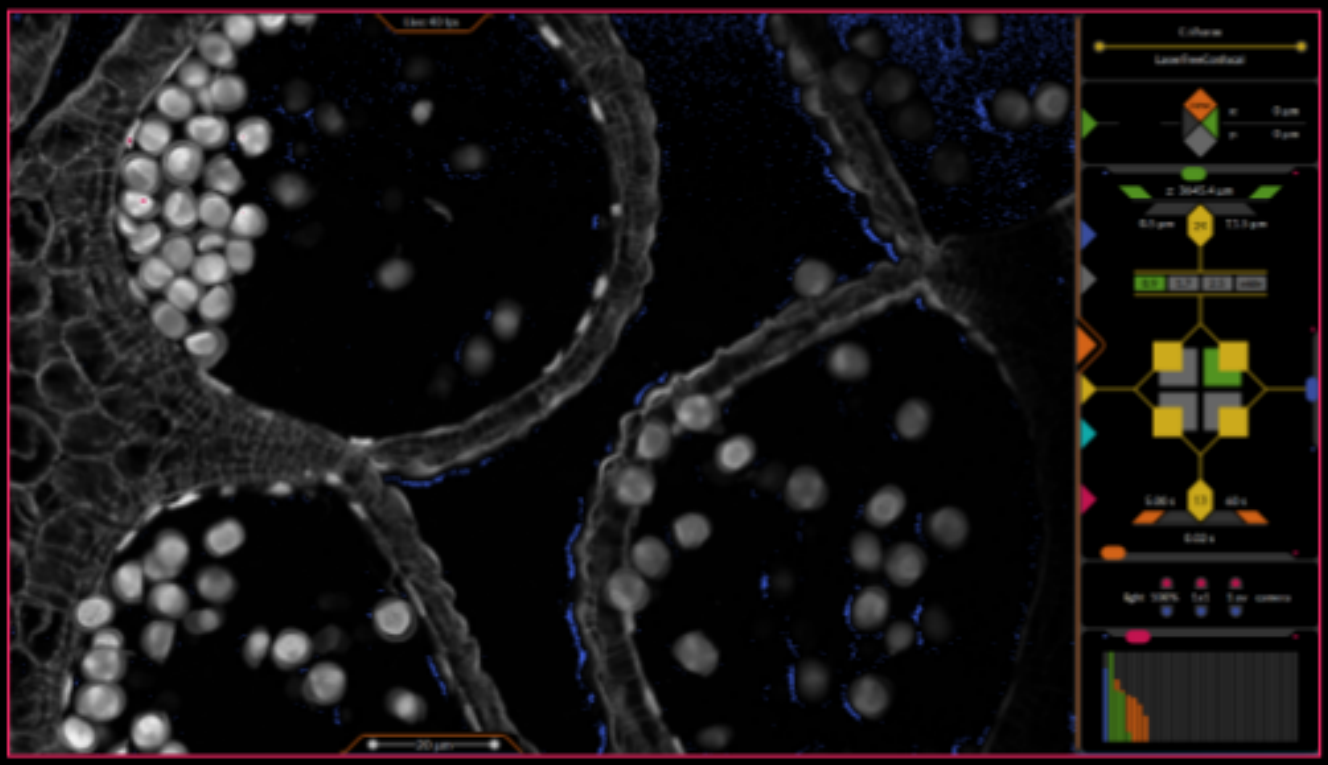
Visionary software



Visionary *software graphical interface.*

VISIONARY SOFTWARE

Clarity comes with the Aurox **Visionary** device control and image acquisition software.

Fast and easy to use, **Visionary** presents all experiment set-up and device controls in one colour coded work-flow, under a single graphical user interface window

Key features of **Visionary** include:

- z-stack, mosaic tiling, time-lapse & multi-channel multi-position imaging.
- Confocal, wide-field & bright-field modes.
- 3 sectioning modes for optimised resolution or speed.
- OME-TIFF file format.
- One-click image export.

LASER FREE CONFOCAL AUROX

Connect **Clarity**

The height of versatility and adaptability, **Clarity** is extremely compact, having dimensions 390 x 220 x 135 mm (WDH) and weighing <6Kg. It can be mounted on upright and inverted microscopes, left or right ports and even on a macroscope.

Clarity on a Nikon inverted microscope.

Clarity on a Leica macroscope.

Key Specifications

Confocality:	0.6 µm (FWHM) with 1.4 NA oil objective
Min exposure:	20 ms 10 ms (Clarity^{HS})
Max frame rate:	Up to 50 fps Up to 100 fps (Clarity^{HS})
Imaging channels:	4 user-exchangeable filter cubes on an internal turret
Channel switching:	<200 ms
Excitation range:	370 - 700 nm
Emission range:	410 - 750 nm

All specifications are subject to change.

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