Evident IXplore IX85 Spin - Spinning Disk 2

System highlights

- Life cell/organism imaging - spinning disk provides lower peak power per unit time
- Deeper imaging - Silicone lenses allow deeper imaging with fewer aberrations
- Dynamic imaging - spinning disk and sCMOS cameras enable fast imaging at up to 80 fps
- CFP/YFP specific lasers and nIR laser at 730 nm to expand the spectral range.
- Ablation laser (355 nm) with separate scanner allows simultaneous ablation and imaging
- FRAP lasers (405 nm and 473 nm) with separate scanner allows simultaneous FRAP/photoconversion and imaging
- Automated plate reading capabilities

Technical Specifications

Microscope:

- Evident IX85 inverted microscope frame with TruFocus ZDC hardware autofocus, motorised stage and piezo Z drive.
- Yokogawa CSU-W1 spinning disk unit (50 µm pinhole disk) with twin camera

Cameras:

- 2 Hamamatsu Fusion BT sCMOS cameras (2304 x 2304 pixels, 6.5 µm x 6.5 µm pixel size.)

Incubation:

- Environmental chamber (full box, PECON) with temperature control and CO2.
- Additional OKO labs heating/cooling stage top incubator with CO2 and N2 (for hypoxia experiments)

Excitation sources:

Laser Wavelength	Power
405 nm	30 mW
445 nm	20 mW
488 nm	100 mW
514 nm	45 mW
561 nm	150 mW
640 nm	100 mW
730 nm	40 mW

Objective lenses:

Magnification	NA	Immersion	Features	Working Distance (mm)
4x	0.16	Air		13.0
10x	0.4	Air		3.1
20x	0.8	Air		0.6
25x	0.85	Silicone	Correction collar – gel pad compatible	2.0
*40x	0.95	Air		0.18
60x	1.3	Silicone	Correction collar	0.3
60x	1.42	Type F Oil		0.15

* Available upon request – contact facility staff prior to your booking.

FRAP and Ablation:

- UGA-42 Caliburn unit (RAPP-optoelectronic).
- FRAP lasers 405 nm (64.3 mW at fibre exit) and 473 nm (69 mW at fibre exit)
- Ablation laser 355 nm. Pulse width ~1.4 ns, pulse power 39.5 uJ at 1.2 KHz.

Software:

- Evident CellSens imaging software and additional RAPP-Opto SysCon FRAP/Ablation software

CSU-W1 beam path (available dichroics and filters):

