Evident IXplore IX83 SpinSR – SpinSR Spinning Disk

System highlights

- Live 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
- Enhanced resolution - use of the SoRa disk achieves 1.4x improvement in xy resolution when compared to widefield imaging, increasing to 2x (120 nm) with post processing
- Automated plate reading capabilities

Technical Specifications

Microscope:

- Evident IX83 inverted microscope frame with TruFocus ZDC hardware autofocus, motorised stage and piezo Z drive.
- Yokogawa CSU-W1 spinning disk unit (50 µm pinhole and SoRa disk) with twin cameras.

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 cellVivo temperature control and CO2.
- Additional cellVivo CO2 and N2 controllers (for hypoxia experiments).

Excitation sources:

Laser Wavelength	Power
405 nm	50 mW
488 nm	100 mW
561 nm	100 mW
640 nm	100 mW

Objective lenses:

Name	Magnification	NA	Immersion	Pixel width (1x mag changer)	Working Distance (mm)	Additional features
UPLXAPO4X	4x	0.16	Air	910 nm	13	DIC
UPLXAPO10X	10x	0.4	Air	650 nm	3.1	DIC
UPLXAPO20X	20x	0.8	Air	325 nm	0.6	DIC
UPLSAPO30XS	30x	1.05	Silicone	217nm	2	DIC, Correction collar
UPLSAPO60XS2	60x	1.3	Silicone	108 nm	0.3	DIC, Correction collar
PLAPON60XOSC2	60x	1.5	Type F Oil	108 nm	0.11	DIC, Correction collar

Software:

- Evident cellSens imaging software with SoRa super resolution, deconvolution and automated plate reading options (suitable for scanR analysis offline) options.

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