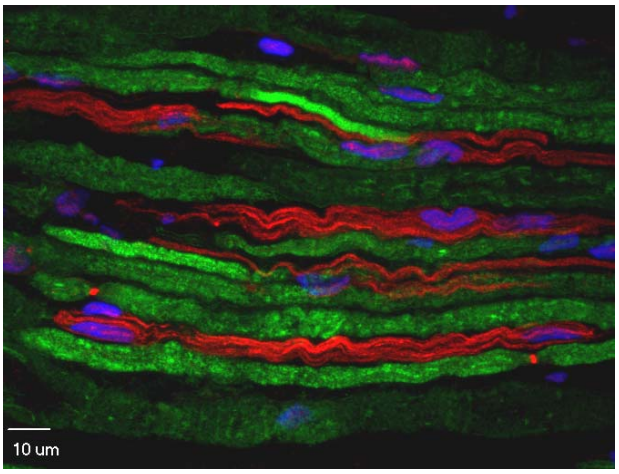
Olympus IX81-DSU Spinning Disk Confocal Microscope



Longitudinal section of sciatic nerve from a 38-month old rat; Stained with anti-myelin basic protein (MBP, green) and anti-pan voltage gated sodium channel (VGSC, red) antibodies. Nuclei are stained with Hoechst dye. 60x

The Olympus DSU (Disk Scanning Unit) represents a breakthrough in spinning disk confocal technology. Developed by Olympus, the DSU disk contains a pattern of slits that creates a virtual pinhole as the disk spins at 3,000 rpm. Designed to optimize the tradeoff between confocality and light throughput, the DSU uses an arc lamp illumination source for maximum excitation wavelength flexibility. Image formation is obtained from a CCD camera that allows full resolution images to be acquired at up to 8.9 frames per second. The DSU is excellent for live-cell applications where speed of acquisition and minimal phototoxicity are paramount. Disk control is fully motorized allowing a computer to easily engage the disk into the light path and select filter sets via the included filter changer. Five disks of varying slit widths and spacing are available allowing the DSU to be optimized for varying objective numerical apertures and specimen thicknesses. The system is controlled via 3i's SlideBook software which has numerous 4D acquisition, quantification, and deconvolution features.

Specific CTAC Olympus IX81-DSU System Configuration:

- Olympus DSU Spinning Disk Confocal Scanner mounted on an Olympus IX81 inverted microscope
- DAPI, GFP, FITC, TRITC, RFP, and CY5 filter sets
- 10 and 20 and 40x Dry, and 60x Water immersion objectives
- Hamamatsu ORCA-ER C4742-80-12AG Monochrome CCD Camera - 1344 x 1024 resolution - 12 bit
- Prior Lumen200 (200 Watt metal arc lamp) light source
- Motorized condenser with DIC optics

For information about this system contact:

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