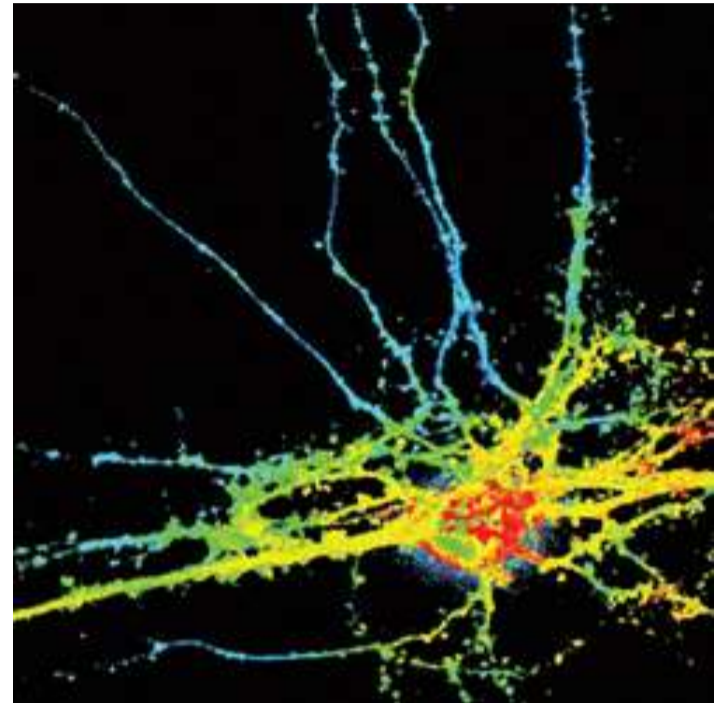


Live Cell Confocal Microscopy

An overview of Andor's solutions for Live Cell

Andor Revolution provides a framework for Andor Bioimaging Division's laser spinning disk, live cell confocal microscopy solutions, which combine our own award winning iXon3 EMCCD Camera with the renowned Yokogawa CSUX units. Andor has a global distribution agreement with Yokogawa Electric Corporation, to integrate powerful confocal solutions. This partnership brings you unrivalled performance, product understanding and support. Revolution encompasses a range of complimentary components, both hardware and software, that fit seamlessly together creating a complete confocal microscopy solution. A flexible component focus also allows us to provide key pieces of hardware stand-alone. At the core of Revolution systems is Andor iQ, a multi-dimensional imaging software which synchronizes iXon cameras with the CSUX spinning disk confocal and other key hardware components such as Piezo Z100 fast z-stage and our Solid State Laser Combiner, with Acousto-Optical Tunable Filter (AOTF) for rapid laser line selection. Our recommended microscope platform is the Olympus IX81, optimized for live cell imaging, but infinity-corrected microscopes from Leica, Nikon, Till or Zeiss can also be supported.

Andor provides camera-based solutions for low-light live cell microscopy that are primarily based around ultrasensitive and fast EMCCD technology. Andor's cutting-edge Revolution Multi-dimensional Confocal Microscopy solutions are ideal for demanding dynamic live-cell techniques, including: Cell Motility Cytoskeleton Dynamics Embryo Development Fluorescent Resonance Energy Transfer (FRET) GFP expression Intracellular Ion Signalling Vesicle Transport



A neuron image stack recorded with Revolution 488, rendered topographically in Andor iQ. The image represents a height coded image of the specimen, with red being closest to the viewer and blue being furthest away. Data courtesy of Dr Tom Blanpied, University of Maryland –formerly of Duke University.