

NIKON CONFOCAL MICROSCOPE



Nikon A1R-HD Confocal Microscope (Eclipse Ti2)

The Nikon A1R Confocal Microscope is a powerful, fully-automated confocal imaging system. The system is able to image in the X, Y, and Z planes with both a high-speed resonant scanner to capture the dynamics of a system and a Galvano scanner to maximize resolution in fixed samples. The A1R-HD has a large field of view and is capable of a resolution below 200 nm. The system comes with sophisticated post-processing software to deconvolve and attractively display results. The system has a 2D and 3D tracking system for particle tracking can be set up to automatically track several regions of interest in a time series scan.

The system includes the following subsystems and components:

- Nikon A1R Live Cell Resonant Dual Scanner
- A1-DUG Hybrid GaAsP/PMT 4ch Detector System
- Transmitted Light Detector
- Nikon LUN4 4 Line Solid State Laser System
- Ti2e Fully Motorized Inverted Microscope
- Nikon Perfect Focus System
- Motorized Encoded XY Stage
- LED Based Epi Fluorescent System (DAPI, FITC, TRITC cubes)
- LED Based Transmitted Light System
- Lasers in the blue, green, red and far-red channels

- 10x, 20x, 40x oil, 60x oil Objectives
- 20x long-working distance objective for live-cell and dynamics imaging
- DIC Imaging
- Stage-Top Incubator for Temperature and Carbon Dioxide Control
- Deconvolution software for improved visualization
- Dedicated analysis workstation for processing images and making presentation quality images

For use of the confocal microscope, please use the following link. Please contact Kun Liu: (liuku@mst.edu) 573-341-6146, for confocal microscope training.