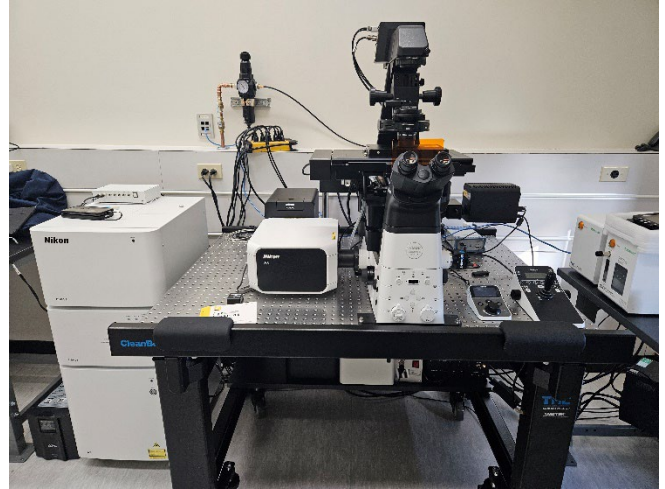


Specification & Optical Configuration

The Nikon AXR with NSPARC

What is it?

The Nikon AXR is an inverted laser-scanning microscope equipped with a 25mm large FOV, an NSPARC module, allowing for super-resolution imaging, and a UV irradiation laser for DNA damage experiments. This confocal microscope has two modes: Resonance and Galvano. The resonance scanning mode allows to acquire images up 2K by 2K pixel resolution at high speed and without compromising the size of the field of view. This mode is also preferable for the imaging of live cells thanks to the faster acquisition being gentler on samples. The Galvano mode on this system allows for a resolution up to 8K by 8K pixels. With either imaging mode, ND acquisition allows for multidimensional acquisition of data with individual settings for each component of the experiment. The large image acquisition on this system allows to generate a large navigational map to identify regions with staining of interest, whose position can then be used to navigate to that exact spot, even if using a higher magnification. The Perfect Focus System 4 (PFS4) is also present to prevent focus drift and keep samples in focus.



Where is it?

Pavilion F, Room-329

Objectives:

Plan Achromat/ 4X, Air / 0.2 NA
Plan Achromat/ 10X, Air / 0.45 NA
Plan Achromat/ 20X, Air / 0.8 NA
Plan Achromat/ 40X, Air / 0.95 NA
Super Fluor / 40X, Oil / 1.3 NA
Plan Achromat/ 60X, Oil / 1.42 NA

Detectors:

A 4 channel DUX-VB detector, 2 PMTs and 2 GaAsP detectors. The two GaAsP detectors are adjustable and will permit spectral imaging.

Camera:

Moment sCMOS

Laser/Filter

Five lasers at 405nm, 488nm, 561nm, 640nm laser (4-colour fluorescence imaging) and a UV 355nm laser (for DNA damage experiments).