

System Configuration

Microscope model:

TiE inverted (Nikon)

Spinning Disk:

Yokogawa CSU-W1 (50 um disk pattern)

Objectives:

CFI Plan Apochromat Lambda 20x/0.75, WD 1 mm, No: MRD00205

CFI Plan Fluor 40x/1.30, WD 0.20 mm, No: MRH01401

CFI Lambda S Apo LWD 40x/1.15 Water, WD 0.59-0.61 mm, No: MRD77410

CFI Plan Apo IR 60x/1.27 Water, WD 0.17 mm, No: MRD07650

CFI Plan Apochromat Lambda 60x/1.4 Oil, WD 0.13 mm, No: MRD01605

Source of light:

Laser wavelength (power at fiber tip): 405 nm (50 mW), 488nm (130 mW),

561nm (130 mW), 647 nm (190 mW)

Spectra X with single bandpass filters: 395/25x, 440/20; 470/24; 510/25, 550/15, 575/25, 640/30

Filter cube:

ET 455/50m, DAPI-ET Emission, No: 77014567

ET 525/36m, No: 77014803

ET 605/70m, No: 77014654

ET 700/75m, No: 77014400

Camera:

Andor iXon Ultra888 EMCCD, 1024x1024 (pix), 13 um pixel

Andor Zyila 4.2 sCMOS, 2048x2048 (pix), 6.5 um pixel, 100 fps

Autofocus system:

Perfect focus

Motorized:

Stage, Z – piezo stage, objective turret, DIC prisms

Live cell imaging:

Stage top incubator, temperature controller with CO₂ mixer

Available Techniques

Fluorescence imaging

Phase contrast

Differential interference contrast

Z stack

Image stitching