

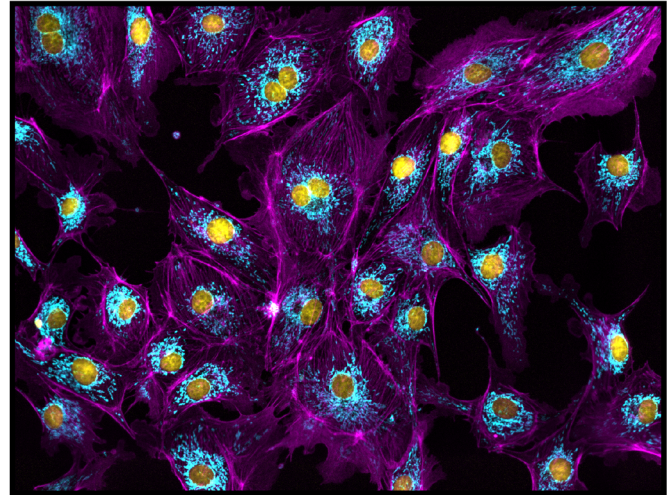
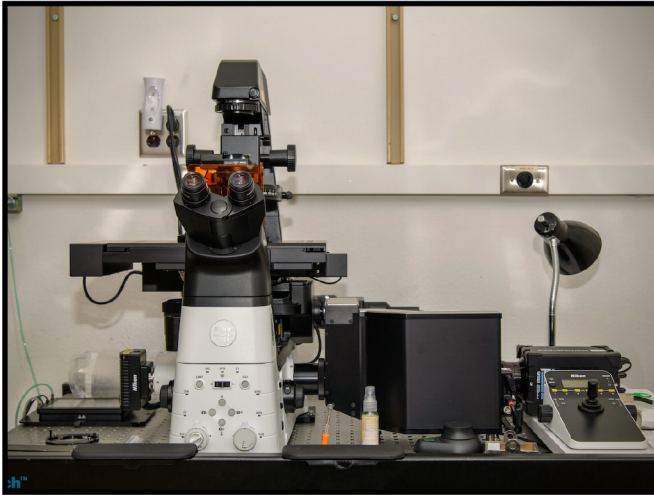
# Nikon **Crest** Spinning-Disk Confocal Microscope



THE UNIVERSITY OF ARIZONA  
Cancer Center



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## Instrument Description

The Nikon “Crest” system is an inverted, spinning-disk confocal microscope that allows for high-throughput, confocal imaging of cell and tissue samples. The Crest Spinning-Disk features a **wide selection of laser lines** (UV - IR) and is ideal for applications that require the increased resolution and contrast of confocal imaging, with the speed of a widefield microscope. The Crest system is equipped with a stage-top environmental incubator for live cell imaging and a **back-illuminated sCMOS camera**, making it ideal for imaging living samples (cells, organoids, etc.) with minimal phototoxicity. The Crest features both **fluorescence and color cameras**, enabling users to image datasets with IHC and fluorescent samples.

## Instrument Features

- Confocal imaging (Crest X-Light V2 Spinning-Disk Optics)
- Nikon DS-Fi3 Color and Photometrics Prime 95B sCMOS cameras
- Live cell imaging (humidity, temperature, and CO<sub>2</sub> regulation)
- Laser selection for wide spectral coverage (UV - IR wavelengths)
- CFP/YFP filter sets for FRET imaging
- Hardware triggering for rapid multichannel acquisition

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## Instrument Details

<b>Available Lasers</b>	405nm / 445nm / 477nm / 520nm / 545nm / 635nm / 730nm	
<b>Available Objective Lenses</b>	4x Plan Apo (NA = 0.13; WD = 16.5mm; Phase) 10x Plan Fluor (NA = 0.30; WD = 15.2mm; Phase) 20x Plan Apo (NA = 0.75; WD = 1mm; DIC) 40x Plan Apo (NA = 0.95; WD = 250 $\mu$ m; DIC) 60x Oil Plan Apo (NA = 1.40; WD = 130 $\mu$ m; DIC)	
<b>Available Cameras</b>	<b>Photometrics Prime 95B (fluorescence)</b> - Back-illuminated sCMOS sensor with 95% QE - Pixel size = 11 $\mu$ m - Sensor Size = 1608 x 1608  <b>Nikon DS-Fi3 (color)</b> - Color CMOS sensor - Pixel Size = 2.4 $\mu$ m - Sensor Size = 2880 x 2048	
<b>Emission Filters</b>	DAPI - 438nm / 24nm      Cy3 - 595nm / 31nm CFP - 485nm / 20nm      Cy5 - 685nm / 40nm GFP - 511nm / 20nm      Cy7 - 819nm / 44nm YFP - 560nm / 25nm	
<b>Supported Samples</b>	Slides (1 x 3 and 2 x 3; No. 1.5 coverslips) Glass-bottom Dishes (35mm/60mm; No. 1.5 coverslips) Glass-bottom Multi-well Plates (all well sizes) Glass-bottom Chamber Slides (all well sizes)	