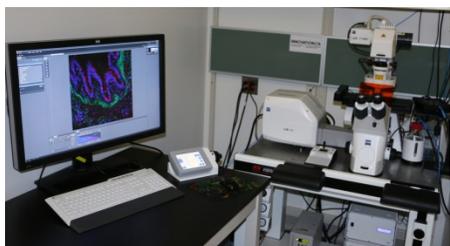


Zeiss LSM700 Spectral Confocal Microscope



A laser scanning confocal microscope with spectral imaging capability. In addition to standard confocal microscopy, lambda scanning (spectral imaging) and post processing with linear unmixing algorithms allows for the separation of emission signals from overlapping fluorescent dyes and reduction or elimination of autofluorescent background signals.

Microscope	Zeiss AxioObserver.Z1
Objectives	Fluorescence/DIC: 10x, 20x, 40x oil
Lasers	Solid state diode lasers for fluorescent excitation at 405, 488, 555 and 639 nm.
VSD	Variable secondary dichroic (VSD) for isolation of fluorescent emission signals.
Filter Cubes	<p>DAPI (Filter Set 49): Ex G365 nm, Di 395 nm, Em BP 445/50 nm</p> <p>GFP (Filter Set 38): Ex BP 470/40 nm, Di 495 nm, Em BP 525/50 nm</p> <p>Cy3 (Filter Set 43): Ex BP 550/25 nm, Di 570 nm, Em BP 605/70 nm</p> <p><i>**These filter cubes are for visual use**</i></p>
Automation	Stage, Objective Turret, Filter Turret
Illumination	Fluorescence: X-Cite Q Series 120 PC Mercury Lamp; 2000 hrs.
Software	Zen Black image acquisition and analysis software.
Other	<p>Pecon stage top humidified incubation chamber with temperature, CO₂ and O₂ control modules for live cell imaging.</p> <p>DIC II/DIC III optics for differential interference contrast (Nomarski) imaging.</p> <p>LSMTECH InverterScope objective inverter. On inverted microscopes, the objective inverter converts an objective to an upright configuration and moves the sample off stage for upright live cell imaging.</p>
Applications	<ul style="list-style-type: none"> - <i>Multicolor fluorescent imaging (up to 4 color channels) of immunocytochemically and immunohistochemically prepared specimens.</i> - <i>Multidimensional image acquisition (time lapse and region of interest).</i> - <i>Overlays of fluorescent and high contrast DIC (Nomarski) images.</i> - <i>Optical sectioning (Z-stacking) with 3D image reconstruction.</i> - <i>Spectral imaging with linear unmixing for separation of signals from dyes with overlapping fluorescent emissions.</i> - <i>Long term live cell imaging using petri plates or chamber slides in a humidity, temperature, O₂ and CO₂ controlled environment.</i> - <i>Protein kinetics (FRET, FRAP, Photoconversion and Photoactivation).</i>