

Light Microscopy

•ZEISS Elyra 7 Super-Resolution Microscope with Lattice SIM²



System capabilities: TIRF, Lattice SIM², Apotome SIM² and 2D and 3D single molecule localization microscopy super-resolution capabilities. The system is equipped with 405nm (50mW), 488nm (500mW), 561nm (500mW) and 640nm (500mW) diode laser lines. All super-resolution data will be archived on an (8) disk bay Synology Disk Station with a total usable 72TB in a RAID 6 configuration

•Leica SP8-X confocal microscope



Our Leica SP8-X confocal microscope, producing high-resolution 3D and 4D image data, has a full range of high-resolution optics on an inverted microscope platform. The instrument includes a resonant scanner, for imaging cell dynamics with reduced photo-damage. It is also equipped with a white light laser (with 200 laser lines), a 405 nm diode laser and an argon gas laser and five fluorescence detectors including three high quantum efficiency HyD detectors. All confocal data is archived on (4) drive RAID 5 configured Buffalo Drive with 16 Terabyte of storage capacity.

- **ZEISS AxioZoom Macro Microscope**



Our Zeiss AxioZoom macro microscope with Apotome 2 allows routine to advanced high-resolution multiscale fluorescence, confocal, transmitted and reflected imaging of slides, multi-well plates and intact plant specimen. This motorized system allows advanced automation to create large area maps and sophisticated multi-location and analysis routines.

- **Nikon NiE Widefield Epifluorescence Microscope**



For wide-field fluorescence imaging, a Nikon Ni-E equipped with high-resolution objectives, 16-bit b/w digital camera (Hamamatsu Orca Flash 4.0) and color CMOS camera (Nikon Fi-3), and Z-stepper motor for 3D imaging is available. This instrument allows imaging of a brightfield, phase contrast, DIC, sensitive imaging of a variety of fluorophores including time-lapse fluorescence imaging

- **Zeiss PALM Laser Microdissection Microscope**



Electron Microscopy

- **ThermoFisher Scientific Talos 120C G2 Transmission Electron Microscope**



Our Talos L120C G2 is equipped with a Ceta 16M 4k x 4k CMOS camera, ambient tomography holder and Gatan ELSA 698.ULP cryo holder (+/- 70 degrees) and MAPS 3 software.

- **Leica EM ICE High Pressure Freezer**



Sample Preparation

- **Leica CM 1950 Cryostat**



Our CM1950 with CryoJane system is used for acquiring and transferring frozen sections to glass slides and optical microscopy and laser capture microdissection.

- **Leica Ultracut UCT Ultramicrotome** with Delsci Machines manipulator for array tomography



- **Vibratome 1500 Sectioning System**



- **Grid plunge freezer**

Software

- **ORS Dragonfly**
- **ZEISS ZEN Blue/Black SR and Intellesis**
- **ImageJ/FIJI**
- **ZEN Connect Correlative Microscopy Workspace**
- **Stereology Analyzer v4.3.3.**
- **Bitplane Imaris 3D Reconstruction and Huygens Deconvolution Workstation**