

Equipment List

Confocal (Zeiss LSM510)

- Generates high-resolution three-dimensional images of thick specimens
- Equipped with 3 lasers, providing excitation from UV to green (351, 364, 458, 488, and 543nm)
- This microscope has an inverted base, which makes it ideal for live cell imaging

FV1000 Confocal (Olympus IX81)

- SIMM scanner for FRAP
- Spectral detector
- Equipped with lasers, providing excitation from UV to IR (405, 457, 488, 514, 561, 633 nm)
- Large environmental chamber with precise control of temperature and CO₂ for live cells
- Inverted platform

Yokogawa Spinning Disk Confocal (Zeiss Axiovert 200M)

- Equipped with lasers, providing excitation from UV to IR (405, 457, 488, 514, 561, 633 nm)
- This microscope has an inverted base, which makes it ideal for live cell imaging
- Large environmental chamber with precise control of temperature and CO₂

Two-Photon (Zeiss LSM510 META)

- Equipped with 3 single-photon lasers, providing excitation from blue to red (458, 476, 488, 514, 543, 633nm) and a tuneable two-photon laser, providing excitation from UV to green (705-930nm), which allows for deeper penetration into thicker specimens and minimizes photobleaching and phototoxicity
- Inverted microscope, heated stage and objective heater makes it ideal for live cell imaging
- META detector, which allows for spectral unmixing of overlapping emission spectra

Axiovert (Axiovert 200M)

- Inverted deconvolution fully motorized microscope is ideal for live-cell imaging
- Multi-channel, time lapse, Z-stack and stage positioning can be simultaneously programmed using Image Pro-Plus
- Monochrome and colour cameras available

Olympus Upright (Olympus BX50)

- Optimized for fast transmitted light and fluorescence whole slide scanning/tiling
- Also has the capability for acquiring 3D stacks of data

Nikon Upright (Nikon OPTIPHOT)

- Simple upright microscope, equipped for transmitted light imaging, including darkfield and phase contrast

Aperio Scanner (Aperio ScanScope XT)

- Brightfield scanner that digitizes whole microscope slides at 20x and 40x magnification and provides fantastic high resolution images
- Scanner has a 120 slide capacity
- Images can be easily viewed with Aperio's free image viewer, ImageScope, which also allows you to take snapshots and perform quantitative analysis
- Note: This is a full service imaging option

Leica Stereomicroscope (Leica MZ FLIII)

- Allows for non-destructive inspection, manipulation, sorting and recording of unprepared fluorescing specimens to be and imaging of fluorescence specimens
- Large field of view and a long working distance, for viewing and manipulating large specimens in transmission, reflection and fluorescence
- The magnification zooms from 1x to 10x

Xenogen (Xenogen IVIS Imaging System 100)

- Allows for quantitative, non-invasive bioluminescence imaging of living animals and cells
- The bioluminescence imaging technique is somewhat more sensitive than in vivo fluorescence imaging, allowing one to detect signals from deeper within the animal.

Image Analysis (Digital Darkroom I & II, PMH site)

- We have two image analysis workstations at our PMH site, Digital Darkroom I and II, available, which are equipped with various image analysis programs, image editing and viewer programs: Image Pro Plus, an online version of the LSM510 software, ImageScope, and Adobe Illustrator and Photoshop .

Image Analysis (TGH site)

- We have one workstation at the TGH site, which is equipped with ImagePro Plus (MediaCybernetics), AutoQuant Decovolution software (MediaCybernetics), Slidebook (Intelligence Imaging), Olympus FV10-ASW image viewer, and Adobe Photoshop