



CUNY ADVANCED SCIENCE RESEARCH CENTER

Live Imaging and Bioenergetics Facility

The **Live Imaging and Bioenergetics Facility** at the CUNY ASRC will support a wide array of applications, including: in vivo imaging of live animals, time-lapse live cell imaging with high-resolution optical sectioning, deep imaging of fixed CLARITY tissues, calcium imaging, photo switching and photo uncaging, Fluorescence Recovery After Photobleaching (FRAP), Förster Resonance Energy Transfer (FRET), laser ablation, and measuring mitochondrial respiration and glycolysis in live cells in real time. The facility will also provide advanced imaging analysis software Imaris for data processing.

To inquire about the instruments, services, training and experimental design, please contact Live Imaging and Bioenergetics Facility Manager Ye He at ye.he@asrc.cuny.edu or via telephone at 212-413-3182 for further information.

For more information:
neuro.asrc.cuny.edu



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Available Instrumentation

ZEISS LSM 880 AIRYSCAN UPRIGHT TWO PHOTON CONFOCAL MICROSCOPE

- Airyscan, FAST module
- Six laser lines 405, 458, 488, 514, 560 and 635nm
- 690nm-1040nm Spectra Physics Deepsee Multi Photon
- 10x, 20xWater and 40xWater objectives
- 20x Clarity lens with 5.6mm working distance

ZEISS LSM 880 AIRYSCAN INVERTED LIVE CELL CONFOCAL MICROSCOPE

- Airyscan, FAST module
- Six laser lines 405, 458, 488, 514, 560 and 635nm
- 10x, 20x, 40xWater, 63xOil objectives
- Live cell incubation chamber

IMARIS SOFTWARE

- 3D/4D reconstruction and measurement
- Particle movement tracking
- Filament tracing
- Cell lineage tracking
- Co-localization quantification
- Cell components detection and quantification

AGILENT SEAHORSE XFE24 LIVE CELL METABOLISM ANALYZER (24-WELL PLATE)

- Cell metabolism phenotype characterization
- Mitochondrial respiration
- Glycolysis
- Automatic compound addition and mixing, label-free detection
- Measuring the oxygen consumption rate (OCR) and extracellular acidification rate (ECAR) in real time