

Cell and Tissue Imaging Unit

Institute of Biomedicine



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Project Researcher
Core Manager



Kirsi Ketola
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IncuCyte Expert



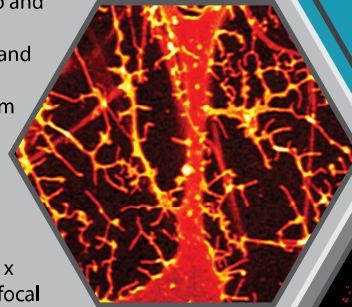
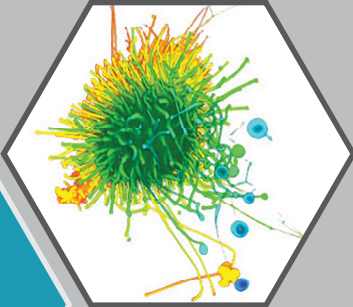
Eija Rahunen
Chief Laboratory Technician
Histology



Kirsi Rilla
Academy Researcher
Director of the Unit

Zeiss LSM 800 Airyscan

- Super-resolution microscope for imaging of live and fixed samples with high resolution and sensitivity
- Zeiss Axio Observer inverted microscope (10 x, 20 x, 40 x oil and 63 x oil –objectives)
- Zeiss LSM 800 confocal module with 2 x GAsp and 1 x Airyscan detectors
- Zeiss XL-LSM S1 incubator with temperature and CO2 control
- Four lasers available: 405, 488, 555 and 640 nm
- Airyscan imaging mode for increased resolution and signal-to-noise ratio

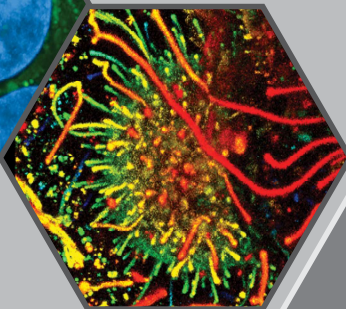
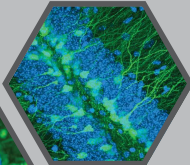
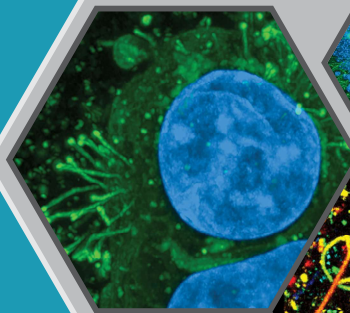


Locations

Snellmania, 3rd floor
Confocal microscopes:
Room Sn3151
IncuCyte system:
Room Sn3182/2
Histology lab:
Room 3245

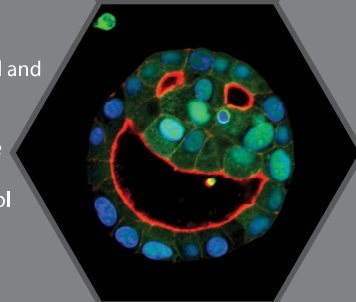
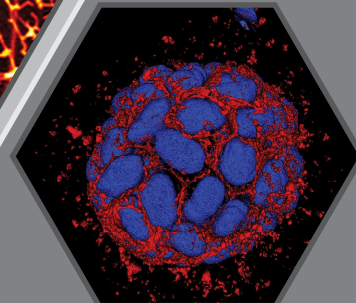
Airyscan

- A special technique which provides 1,7 x better resolution than conventional confocal microscopy (resolution of 120 nm (in x,y) and 350 nm (in z) even in thick samples)
- With the 4 – 8 x better signal-to-noise ratio (SNR) than classic confocal
- Airyscan detector with 32 detector elements
- Each detector functions as a single, very small pinhole



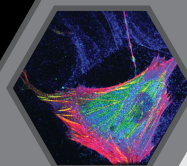
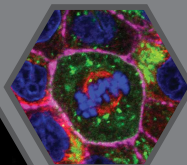
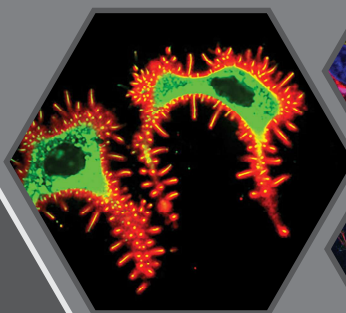
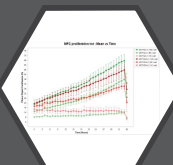
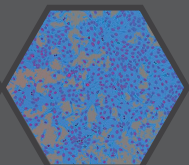
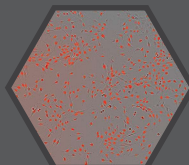
Zeiss LSM 700

- Basic confocal microscope for both live and fixed cell and tissue samples
- Zeiss Axio Observer inverted microscope (10 x, 20 x, 25 x water/oil, 40 x oil and 63 x oil –objectives) with piezo stage
- Zeiss LSM 700 confocal module
- Zeiss XL-LSM S1 incubator with temperature and CO2 control
- Four lasers available: 405, 488, 555 and 640 nm



IncuCyte S3

- High-throughput imaging station for live-cell and time-lapse experiments
- Six plates for simultaneous automated acquisition and analysis of living cells
- Incubator with temperature and CO2 control
- CMOS camera with 4 x, 10 x and 20 x objectives
- Image acquisition using visible light, green and red fluorescence
- Modules: Standard imaging, Image Lock, Scratch Wound, Whole Cell, Dilution Cloning, Spheroid, Chemotaxis, Cell-by-Cell and Neurotracker



Histology laboratory

- Histology sample processing for light microscopy and staining of histological, immunohistochemical and immunofluorescence samples
- Tissue processor (Shandon)
- Tissue embedding system (TissueTek)
- Two microtomes (HistoRange and Micron)
- Slide stainer (Sakura)

