INVERTED CONFOCAL AIRYSCAN MICROSCOPE WITH LIVE CELL IMAGING CAPABILITY

ZEISS LSM800

Location: CSB L11 Support Room 9

Applications: More suitable for live cells. Fixed cells and tissue sections can also be imaged. XYZλ-t, tile and multi-position imaging. Improved resolution with Airyscan

Specifications:

• Inverted confocal with 405nm (DAPI), 488nm (FITC), 561nm (rhodamine) and 640nm (Cy5) laser lines

• Objectives: 10x/0.45 Plan Apochromat, 20x/0.8 Plan Apochromat, 20x/0.4 Plan Neofluor Corr, 40x/0.6 Plan Neofluor Corr, 40x/1.3 oil DIC Plan Apochromat and 63x/1.4 oil DIC Plan Apochromat Airyscan, 63x/1.3 W DIC C-Apochromat Corr Airyscan and multi-immersion objectives lenses, accessories for DIC imaging

• Motorised stage, Z-drive, filter turret, nosepiece

• Two high-sensitive GaAs-PMT detectors and an additional Airyscan detector (GaAsP) array for Airyscan

• Box-type incubation chamber with CO2 flow and temperature control and hardware autofocus for live cell imaging

• Zen software for image acquisition, Airyscan processing and simple image analysis

Latest as of 1 June 2020
INVERTED CONFOCAL MICROSCOPE WITH AIRYSCAN

ZEISS LSM800

**Location:** EMB L7 Imaging Room

**Applications:** More suitable for live cells. Fixed cells and tissue sections can also be imaged. XYZλ-t imaging. Tile and multi-position imaging. Improved resolution with Airyscan

**Specifications:**
- Inverted confocal with 405nm (DAPI), 488nm (FITC), 561nm (rhodamine) and 640nm (Cy5) laser lines.
- Objectives: 10x/0.3 Plan-Neofluor, 20x/0.5 Plan Neofluor, 20x/0.8 Plan Apochromat, 40x/1.3 oil DIC Plan Apochromat and 63x/1.4 oil DIC Plan Apochromat Airyscan
- Motorised stage, filter turret, nosepiece
- Two-channel high-sensitive GaAsP-PMT detectors and an additional Airyscan detector (GaAsP) array for Airyscan
- Brightfield (DIC) imaging
- Zen software for image acquisition, Airyscan processing and simple image analysis

<table>
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<th>User fee/hour ($)</th>
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<td><strong>Microscope</strong></td>
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<td>Inverted Confocal Microscope with Airyscan - LSM800</td>
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Latest as of 1 June 2020
INVERTED SPINNING DISK CONFOCAL MICROSCOPE

NIKON ECLIPSE TI-E

**Location:** EMB #04-02V

**Applications:** Fast confocal imaging for live/fixed cells. FRAP, laser ablation, XYZ-t imaging; tile and multi-position imaging; long-term live cell imaging

**Specifications:**
- Inverted microscope (Ti-E) with Yokogawa CSU-X1-A1 spinning Disk (50 micron pinhole). Motorised stage, filter turret, nosepiece
- Laser lines: 402nm (DAPI), 488nm (FITC), 561nm (rhodamine) and 643nm (Cy5)
- Objectives: 10x/0.3 Plan Fluor, 40x/0.6 Super Plan Fluor ELWD, 60x/1.4 oil Plan Apochromat, 100x/1.45 oil Plan Apochromat
- Lumencor SOLA for reflected light Illumination
- Photometrics Evlove EMCCD camera for low light level detection and ORCA Flash 4.0 V2 camera for fast imaging
- Box-type incubator with CO2 and temperature control for live cell imaging
- MetaMorph software for image acquisition and image analysis

Latest as of 1 June 2020
INVERTED CONFOCAL MICROSCOPE

ZEISS LSM800

**Location:** CSB L10 Support Room 11

**Applications:** More suitable for live cells. Fixed cells and tissue sections can also be imaged. XYZÅ-t imaging

**Specifications:**
- Inverted confocal with 405nm (DAPI), 488nm (FITC), 561nm (rhodamine) and 640nm (Cy5) laser lines
- Objectives: 20x/0.5 Plan Neofluar, 40x/1.3 oil DIC Plan Apochromat and 63x/1.4 oil DIC Plan Apochromat, accessories for DIC imaging
- Motorised stage, Z-drive, filter turret, nosepiece
- Two MA-PMT detectors for confocal imaging, ESID for brightfield imaging
- Heating insert, objective heater
- Zen software for image acquisition and simple image analysis

**Contact:** Asst Prof Ch’ng Toh Hean at thchng@ntu.edu.sg

Latest as of 1 June 2020
INVERTED SPINNING DISK CONFOCAL MICROSCOPE

NIKON ECLIPSE TI-E

Location: CSB L11 Support Room 6

Applications: Fast confocal imaging for live/fixed cells. FRAP, laser ablation, XYZ-t imaging, tile and multi-position imaging; long-term live cell imaging.

Specifications:
- Inverted microscope (Ti-E) with Yokogawa CSU-W1 spinning disk with 50 micron pinhole. Motorised stage, filter turret, nosepiece
- Laser lines: 402nm (DAPI), 445nm (CFP), 488nm (FITC), 514nm (YFP), 561nm (rhodamine) and 642nm (Cy5).
- Objectives: 10x/0.3 Plan Fluor, 20x/0.45 Super Plan Fluor ELWD, 40x/1.3 oil Plan Fluor, 60x/1.4 oil Plan Apo, 100x/1.45 oil Plan Apo
- X-cite 120 LED for reflected light Illumination
- Photometrics Prime 95B backilluminated sCMOS camera for low light level detection
- Photometrics Live-SR module for improved resolution
- iLAS2 FRAP system
- Stage-top incubator with CO2 and temperature control for live cell imaging
- MetaMorph software for image acquisition and image analysis

Latest as of 1 June 2020