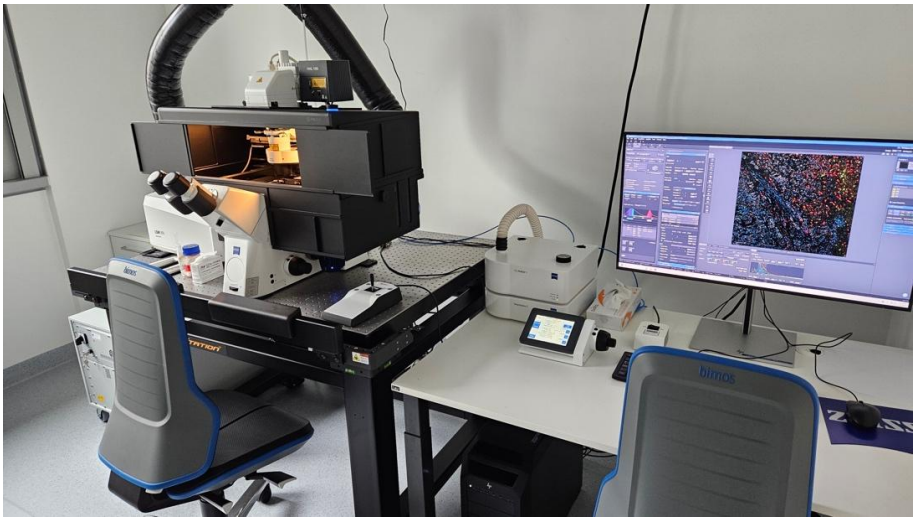
Microscope Description Available and Booking Information for the ICON Imaging Corer Facility

Zeiss LSM 990 with Airyscan 2 (Room S 01.006)



Microscope description:

Zeiss LSM 990 with Airyscan 2 (inverted) microscope fitted with a motorised stage for fast reliable acquisition of 3D multi position/ tile scan experiments. The system runs on Zen Blue 3.12 and includes the Zeiss AI sample finder, enabling faster location of samples and target regions. Fitted with a dark incubation chamber, temperature and humidity-controlled CO_2 chamber, and an auto immersion system on the 40x objective, users can perform extended duration high resolution imaging of cell culture plates.

Fitted with internal spectral detectors allowing for simultaneous more than 4 colour imaging, a transmitted PMT for phase contrast imaging, an Airyscan 2 unit for super resolution microscopy, and a monochrome camera for rapid acquisition of overview images.

Objectives:

- 5x/0.16 EC Plan-Neofluar (FWD=18.5mm)
- 10x/0.3 EC Plan-NeoFluar (FWD=5.2mm)
- 20x/0.8 Plan-Apochromat (FWD=0.55mm)
- 40x/1.2 Water LC LCI Plan-Apochromat (FWD=0.41mm), auto immersion
- 63x/1.4 Oil DIC Plan-Apochromat (FWD=0.19mm)

Illumination:

- Viluma 5 RGB-UV solid-state light source
    - 385nm – Dapi, Alexa 405, Hoechst and similar dyes
    - 469nm – eGFP, FITC, Alexa 488 and similar dyes
    - 555nm – Cy3, TRITC, DsRed and similar dyes
    - 631nm – Cy5, Alexa 647, APC and similar dyes
- HAL 100 – Transmitted

Cameras:

- Axiocam 305 mono. CMOS sensor. Resolution – 2464x2056 (5.07 Mega pixel)

Filter sets:

- 90 HE LED – Dapi, FITC, TRITC and Cy5

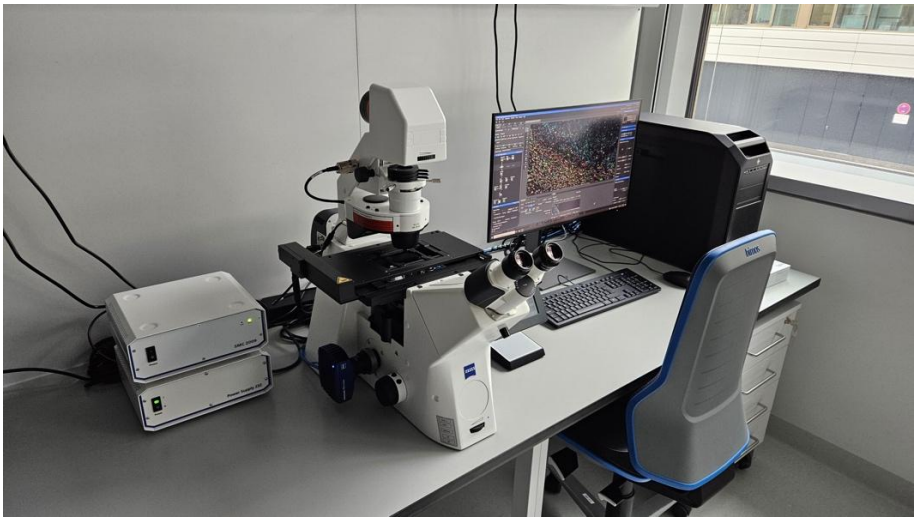
Lasers configuration:

- 405 nm, Diode Laser with 14 mW
- 488 nm, Diode Laser with 10 mW
- 561 nm, DPSS laser with 10 mW
- 639 nm, Diode Laser with 7.5 mW

Detectors:

- Spectral detector – 32 channel GaAsP PMT with 2 flanking Multi Alkali PMTs
- Transmitted light PMT
- Airyscan 2 – for super resolution imaging of fine structures

Zeiss Axio Observer 7 (Room S 01.006)



Microscope description:

Zeiss Axio Observer 7 (Inverted) microscope fitted with a motorised stage for fast reliable acquisition of 3D multi position and tile scan experiments. The system runs on Zen Blue 3.10 and includes the Zeiss AI sample finder, enabling faster location of samples and target regions.

Fitted with both colour and monochrome cameras the system can utilised for both brightfield and darkfield microscopy.

Objectives:

- 5x/0.16 Plan-Neofluar (FWD=18.5mm)
- 10x/0.3 Ph1 Plan-NeoFluar (FWD=5.2mm)
- 20x/0.3 PApo (FWD=0.55mm)
- 40x/0.95 Corr Plan-Apochromat (FWD=0.25mm)

Illumination:

- Colibri 7 Solid-state light source
    - 385nm – Dapi, Alexa 405, Hoechst and similar dyes
    - 430nm – eCFP, Alexa 430 and similar dyes
    - 475nm – eGFP, FITC, Alexa 488 and similar dyes
    - 555nm – Cy3, TRITC, DsRed and similar dyes

    - 590nm – mCherry, Alexa 568, mPlum and similar dyes
    - 630nm – Cy5, Alexa 647, APC and similar dyes
    - 735nm – Cy7, Alexa 750 and similar dyes
- microLED 3 – Transmitted

Filter sets:

- 90 HE LED – Dapi, FITC, TRITC and Cy5
- 110 HE LED – Dapi, FITC, mCherry and Cy7
- 38 HE GFP – eGFP, Alexa 488, FITC
- 43 HE Cy3 – Cy3, DsRed, PE

Cameras:

- Axiocam 705 mono R2. CMOS sensor. Resolution – 2464x2056 (5.07 Mega pixel)
- Axiocam 305 colour. CMOS sensor. Resolution – 2464x2056 (5.07 Mega pixel)

Imaging facility prices:

Device	Group	Autonomous	Assisted	Training	Price
Zeiss LSM 990	Internal	Y	Y	Y	12
Zeiss LSM 990	External	Y	Y	Y	25
Axio Observer	Internal	Y	Y	Y	7
Axio Observer	External	Y	Y	Y	15

Booking rules:

- Peak hours are 8:30-17:30 Monday to Friday, these are also the hours that assistance is normally available. Trained users can use the system any time, any day.
- Minimum booking time is 30 minutes.
- Maximum booking per week per device: 15 hours
- Maximum booking per day per device: 5 hours
    - These limits do not apply for bookings made less than 24 hours in the future.
- Long term booking limit is 14 days, so the longest time in the future that a user can book themselves is 14 days. Admin can book further for experiments that have very specific timing.
- Minimum cancelation time is 2 hours. Users will be charged 50% of the booking price for late cancellation.

Contacts:

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For booking a microscope slot please contact:

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