

cmmi

Center for Microscopy and Molecular Imaging



Preclinical imaging facility:
microscopy &
small animal imaging



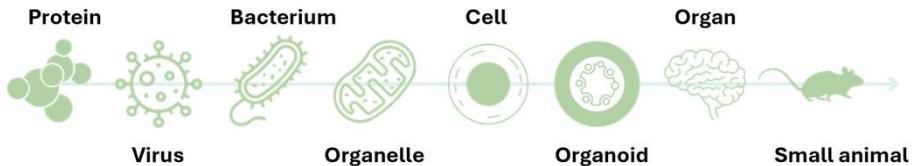
Sponsored research
&
collaborative
projects



Services & training
to academic
& industrial partners

Multiscale analysis

From protein
to small animal



Comprehensive workflow

From experimental design to
Images analysis & reporting



State-of-the-art
equipment

20 committed
experts

Academic ecosystem
> 150 scientists

IMAGING PLATFORM CREATED JOINTLY BY ULB AND UMONS IN 2011

Our services



cmmi
excellence in preclinical imaging

MICROSCOPY

Fluorescence microscopy (live and fixed samples)

- High-throughput, wide-field
- Confocal, super-resolution
- Fluorescence Lifetime Imaging (FLIM)

Electron microscopy

- Scanning electron microscopy (SEM)
- Transmission electron microscopy (TEM, ultrastructure and immunolabelling)
- Cryo-TEM

Fourier Transform Infrared (FT-IR) microscopy

DIGITAL IMAGE ANALYSIS IN PATHOLOGY

Histological and cytological sample processing

Biomarker characterization & validation

- Immunohistochemistry
- Multiplexed immunofluorescence
- Chromogenic in situ hybridization

High-throughput whole slide imaging
(brightfield and fluorescence)

AI-based image processing & quantitative analysis

IN VIVO IMAGING

Integrated animal facility, animal models implementation & development

NUCLEAR AND X-RAY MOLECULAR IMAGING

Positron Emission Tomography (μ PET)

Single Photon Emission Computed Tomography (μ SPECT)

High resolution Computed Tomography (μ CT)

Autoradiography

NON-IONISING MOLECULAR IMAGING

Design & manufacturing of contrast agents & fluorescent dyes

Magnetic Resonance Imaging (MRI)

MultiSpectral Optoacoustic Tomography (MSOT)

Bioluminescence, Fluorescence & Cherenkov Imaging

MULTIMODAL IMAGING PROCESSING

AI-driven object detection, segmentation & classification

Multi-scale & multi-dimensional imaging (2D, 3D, time-lapse)

High-throughput quantification & statistical modeling

Custom pipelines

SPATIALLY RESOLVED BIOLOGY

High resolution imaging mass spectrometry (DESI-TOFMS, desorption electrospray ionization – Time Of Flight Mass Spectrometry)

Mass cytometry (CyTOF, cytometry-TOF)

- Tissue imaging
- Cell analysis

COMING SOON

