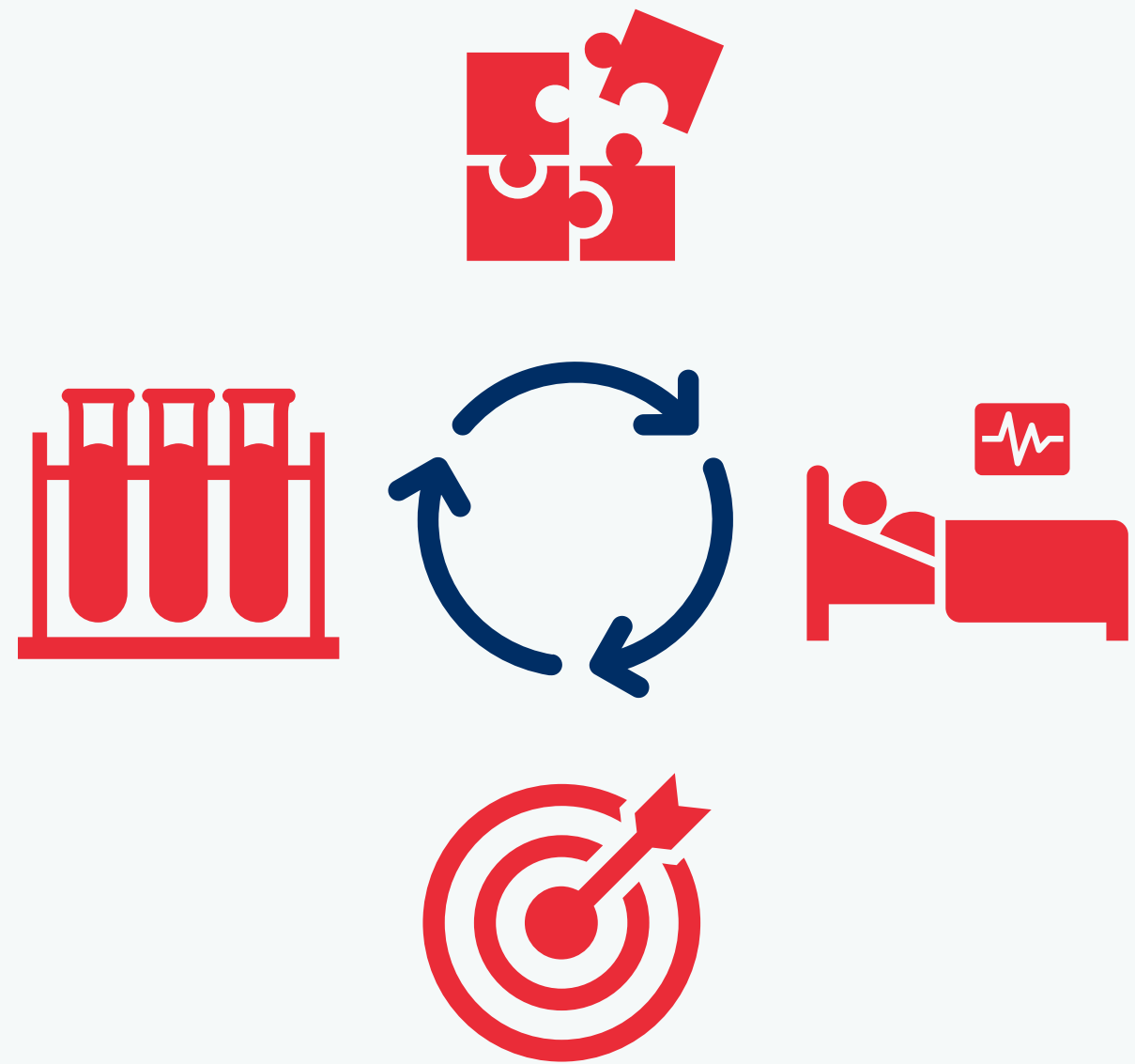


μNEURO Centre of Excellence

Multidisciplinary and multidimensional neuroscience

Key strengths and focus areas



→ Toolbox for **integrated multidimensional analysis of the nervous system**: complementary disease models and neuro-(imaging) technologies

→ Translational platform for **bench-to-bedside research** on disease mechanisms, early diagnostic/prognostic (imaging) biomarkers and evaluation of therapeutic strategies

→ Multidisciplinary synergies in **5 key disease areas**: dementia, movement disorders, neuromuscular disorders, traumatic brain/spinal cord injury and neuro-oncology

DynXLab core facility

4D quantitative X-ray imaging & analysis

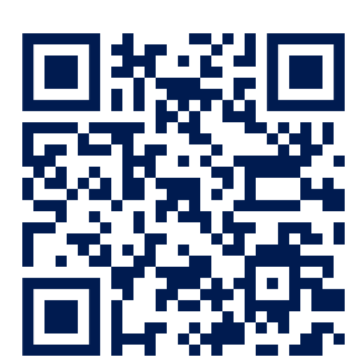


Image reconstruction, processing and analysis

- Advanced (brain) MRI, including quantitative MRI
- Tomography: X-ray / CT
- Shape modelling



University of Antwerp
Laboratory of Cell Biology and Histology



Antwerp Centre for Advanced Microscopy

Microscopy workflows



High-end microscopy

- Understanding cell biology in health and disease
- Focus: translational gut and lung research and accelerated aging diseases



University of Antwerp
Bio-Imaging Lab



In vivo MRI of small animals

- Imaging biomarkers for monitoring disease progression and therapeutic response
- Focus: neurodegeneration, Huntington's Disease and Spinal Cord Injury

MICA-BIL Core facility

Small animal imaging (MRI, PET, SPECT, BLI, ...)



University of Antwerp
Molecular Imaging & Radiology



Medical imaging in humans

- Radiology (MRI/CT/X-Ray)
- Nuclear Medicine



University of Antwerp
Peripheral Neuropathies Group



Biology of peripheral neuropathies

- From gene to models (cell/animal) and treatment
- Focus: Charcot-Marie-Tooth disease and rare inherited neuromuscular diseases



University of Antwerp
Experimental Neurobiology Unit



Neurobiological mechanisms

- Neuro-imaging and neurophysiology for markers of cognition and neurodegeneration
- Neuronal circuit development and function (electrophysiology)



University of Antwerp
Translational Neurosciences



Clinical Neurology



- Fundamental, translational and clinical research on nervous system diseases
- Focus: neurodegeneration, neuromuscular disorders, epilepsy, movement disorders and stroke



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