

TESTIMONIALS

"Having access to the expertise and network of BIOMED and REVAL is extremely valuable to our research."

Kris Motmans, CEO MonaCell

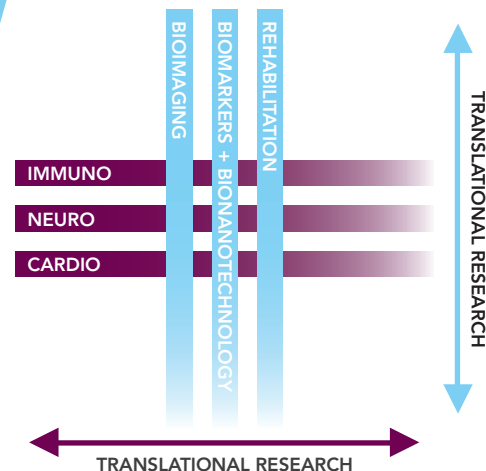
"Working together with BIOMED has been very valuable. Their expertise in the field of neuroscience has helped us understanding and unravelling mechanisms of one of our internal targets; it has helped us to reposition the program into another therapeutic area."

Steve De Vos, TA lead Autoimmune Diseases, Galapagos

CONTACT

An Voets
Business developer BIOMED

an.voets@uhasselt.be
T +32 11 26 93 23 | F +32 11 26 92 99
BIOMED, Agoralaan, Building C
3590 Diepenbeek, Belgium
www.uhasselt.be/biomed-en



UHASSET-BIOMED'S SCIENTIFIC EXPERTISE

UHasselt-BIOMED orients its research activities along the axis 'from bench to bedside and back' by investing in disease-oriented immunological (**IMMUNO**), neuroscience (**NEURO**) and cardiology (**CARDIO**) research. More specifically, we invest in high level basic research and combine this with translational programs that aim to develop an application that is of benefit for the patient and the health sector in general. The major disease indications for our research are multiple sclerosis, rheumatoid arthritis, spinal cord injury, epilepsy and heart failure. Three additional cross-sectional domains will help to reach the translational ambition: **bioimaging**, **biomarkers/bionanotechnology** and **rehabilitation**. Each of the domains has strong scientific quality and a strong link with clinical experts.

WHY CHOOSE FOR UHASSET-BIOMED?

- Internationally recognized researchers with publications in peer-reviewed expert journals.
- Close links with clinical experts and access to patients.
- Access the Flemish biobank and the Limburg biobank UBILim (www.ubilim.be): clinical samples of major disease indications (autoimmune diseases, oncology, cardiology, infectious disease) collected in a standardized manner.
- Flexible in projects to address our partners' needs.
- Proven experience with services and contract activities with the industry.
- Proven experience with IP generation (autoimmune biomarkers) and spin-off creation (Apitepe NV, Seps-Pharma NV).

STRATEGIC PARTNERSHIPS WITH...

- Limburg Clinical Research Program (LCRP), the joint initiative of UHasselt, Jessa hospital and Ziekenhuis Oost-Limburg for translational clinical research.
- Rehabilitation and MS center Overpelt, our partner in the MS network Limburg for research and clinical studies in the field of multiple sclerosis.
- LifeTechValley, the nonprofit cluster organization supporting entrepreneurship and business development in life sciences and healthcare with a focus on healthy aging with access to the health care living lab Careville.
- Bioville, bioincubator located at the university campus of Diepenbeek and active in the Health & Care sector.
- Flanders Vaccine, a catalyst for public-private partnerships in vaccine related research and business.



UHASSET - BIOMED - BIOMEDICAL RESEARCH INSTITUTE

YOUR COLLABORATOR OR
BUSINESS PARTNER?

MOLECULAR, CELL AND TISSUE TECHNIQUES

- High speed cell sorter (FACS Aria II)
- 4-laser 18 color flowcytometric analyzer (BD LSR Fortessa)
- HPLC, MALDI-TOF, ESI (Orbitrap Velos PRO)
- Next generation sequencer
- Surface plasmon resonance (Biacore)

- **Genomics:** (real-time) PCR, DNA sequencing, genetic cloning, NGS analysis, forensic research (certified laboratory)
- **Immunology:** flow cytometry, cell sorting, cytokine analysis, ELISA, immunoassays
- **Proteomics:** 1-D, 2-D gel electrophoresis, DIGE, liquid chromatography, tandem mass spectrometry, brain proteomics
- **Cell and tissue culture:** Standardized protocols, specific cellular functional assays, testing of pharmacological compounds, stem cells, neural cells, ex vivo brain slices, cardiomyocytes
- **Biomarker discovery:** Serological antigen selection, metabolomics, proteomics

ANIMAL MODELS

- Mouse/rat models for demyelination and neuroinflammation (EAE, cuprizone)
- Mouse models for spinal cord and brain injury
- Rat/mouse models for (chronic) heart and renal failure
- Rat models for neurodevelopment

- **Follow-up** of animals via functional and cognitive parameters
- **Histological** techniques and **imaging**
- Cardiac function assessment (echocardiography)
- Evaluation of (pharmacological) compounds

BIOIMAGING AND ELECTROPHYSIOLOGY

- Philips EM 208 S
- CLSM Zeiss META Axiovert 200M with femtosecond pulsed laser excitation
- Conventional patch clamp
- Port-a-Patch

- Longterm 3D in-gel toxicity assays
- Immunohistochemistry
- Ex vivo and in vivo (3D) fluorescence microscopy
- (3D) label-free microscopy, bioluminescence
- Time lapse microscopy
- Ultrastructural analysis
- Tracking of stem cells in vivo
- Studying ligand activated and voltage activated ion channels in cell lines, primary cell cultures, isolated cardiomyocytes and ex vivo brain slices of rats and mice
- Standardized testing of (new) compounds

REHABILITATION (REVAL)

- Jaeger Oxycon, DXA scanner, Biodex dynamometer
- Full Technogym training/rehab facilities
- TMS, Cortex, Gaitrite
- Xsens, APDM, Accelerometers, Force platforms
- Eye Tracking system

- Blood analysis, Muscle/fat biopsies (incl. fibre typing)
- 3D movement registration, accelerometry
- Testing of assistive technologies in rehabilitation
- Optimization of clinical protocols or training programs
- ECG monitoring, Exercise testing and muscle dynamometry
- Evaluation of body composition
- Developmental assessment (pediatrics)
- Neurophysiological assessment (TMS, EMG)
- ADLON Sports Medical Center (www.adlon.be)