



DEPARTMENT OF HEALTH, MEDICINE AND LIFE SCIENCES

The Department of Health, Medicine and Life Sciences is dedicated to improving health and quality of life through excellence in education, research, and clinical engagement. Responsive to national health priorities and connected to international networks, our work addresses major challenges in human health from fundamental discovery to professional practice.

We conduct research across biomedical, clinical, and health sciences, integrating systems and computational approaches with practice-based inquiry in areas such as nursing and midwifery. Our strengths include cancer biology, molecular mechanisms of disease, signalling pathways, and therapeutic innovation, enabling discoveries that advance both scientific understanding and professional practice.

This breadth creates a distinctive academic environment in which research, education, and professional training coexist in close proximity, enabling exchange and collaboration across disciplines.

CONTACT

dhml@uni.lu

CAMPUS

Belval, Biotech I
7, av. des Hauts-Fourneaux
L-4362 Esch-sur-Alzette

Belval, Biotech II
6, avenue du Swing
L-4367 Belvaux



dhml.uni.lu

MEMBERS

- 16 professors and associate professors
- 30 Post-Docs and research scientists
- 25 Doctoral candidates
- 50 Technical and administrative staff

FUNDING AND COLLABORATIONS

- Acquired funding 2020-2023: €6 million



Fonds National de la
Recherche Luxembourg

- More than 40 national & international collaborations with research institutions, universities, companies & hospitals

PUBLICATIONS

- 100+ peer-reviewed articles in scientific journals (2024-2025)



Research areas

CANCER CELL BIOLOGY & DRUG DISCOVERY

- Cancer cell biology of RAS associated stemness traits
- Drug targeting of RAS signalling
- Molecular cell biology of RASopathies

MOLECULAR DISEASE MECHANISMS

- Molecular mechanisms underlying colon cancer initiation and development
- Role of the microenvironment and environmental factors on colon cancer
- Identification of biomarkers and therapeutic targets in colon cancer

NURSING

- Cancer prevention
- Quality of life and spiritual care
- Paediatric palliative care
- Nurses' attraction and retention
- Patient- and family-centered research

SIGNAL TRANSDUCTION

- Intercellular communication in cancer
- Cytokine signal transduction
- MiRNAs and long non-coding RNAs
- Drug screening in 3D cancer models
- Metabolic rewiring in cancer

SYSTEMS BIOLOGY

- Model based data integration and analysis of disease specific networks
- Cancer specific signaling networks and multi-scale modeling of cancer
- Integrated modelling and epigenetic regulation of metabolism
- Data mining of human clinical and cohort data
- Tool development

MIDWIFERY

- Midwifery education and interdisciplinary pedagogy
- Professional practice and autonomy
- Maternal and perinatal health: physiology and salutogenesis

