

LIVR

LIVER CELL BIOLOGY RESEARCH GROUP

Research at LIVR aims to better understand the interactions between the different liver cell types in healthy and pathological conditions, and to obtain novel insights in the mechanisms of liver regeneration and the pathogenesis of liver fibrosis for the identification of new therapeutic targets for chronic liver disease.

HIGHLIGHTS

- Development of novel **diagnostic scoring systems** for liver fibrosis
- Generation of **in vitro** liver disease models
- **Fundamental research** concerning mechanisms of fibrosis development and resolution
- Integration of **iPSC-derived liver cells** for disease modelling
- Investigation of the role of **liver progenitor cells** during liver regeneration



14 researchers



9 national and international projects



10 collaborations



2 clinical studies

CONTACT

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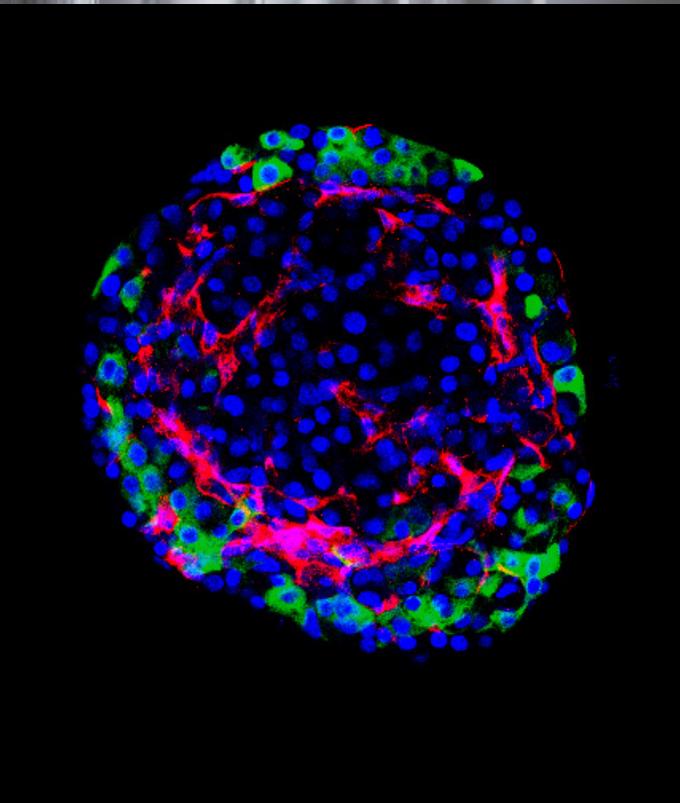
EXPERTISE

The LIVR-team has **>10 years expertise** on research concerning mechanisms of hepatic stellate cell activation and the development of **in vitro models** to study them.

Within Belgium, we are unique in our research for using primary hepatic cells for **mechanistic studies** and using human iPSC-derived hepatic cells for **modelling** of liver disease. By close collaboration with the university hospital Brussels (UZ Brussel) we are able to translate this fundamental research into **applied clinical work**.

The LIVR-team has expertise in following techniques:

- Fluorescence-activated cell sorting of primary liver cell types
- Extracellular vesicle-isolation and analysis
- Generation and analysis of long-time liver-spheroid cultures (mouse and human)
- Quantitative Polymerase Chain Reaction for RNA and ncRNA
- Toxicity-screening in a 3D setting
- Enzyme linked immunosorbent assay, Western blot, Immunocytochemistry and immunohistochemistry
- Downstream bio-informatic analyses of RNAseq data



From identifying novel mechanisms of **hepatic stellate cell activation** to development of novel tools for **diagnosis and screening** of patients with liver fibrosis; research at LIVR covers all aspects of the liver pathology.