Hanseatic Life Science Research Infrastructure Consortium

HALRIC Final conference | 25 February 2026

CROSSING BORDERS, CREATING CONNECTIONS
Pilot projects' highlights from industry, hospital and academy

Veronica Lattanzi, HALRIC Co-director, Lund University

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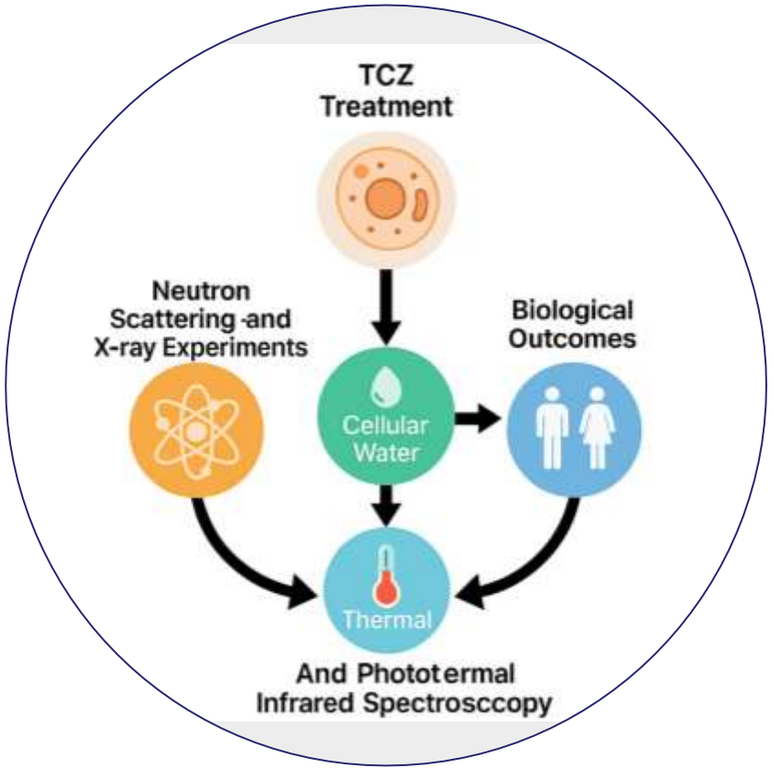
Nano Warriors: Tocilizumab Takes Flight to Fight Inflammation

Henrik Jacobsen, DMSC-ESS



What if the key to predicting cellular response to treatment lies not in the cell itself, but in its water?

HALRIC partners

- MAX IV Laboratory
- University of Copenhagen (UCPH)
- European Spallation Source (ESS)
- ESS-Bilbao
- Oswaldo Cruz Foundation
- Photothermal Spectroscopy Corp. GmbH (Industry partner)

Research infrastructures

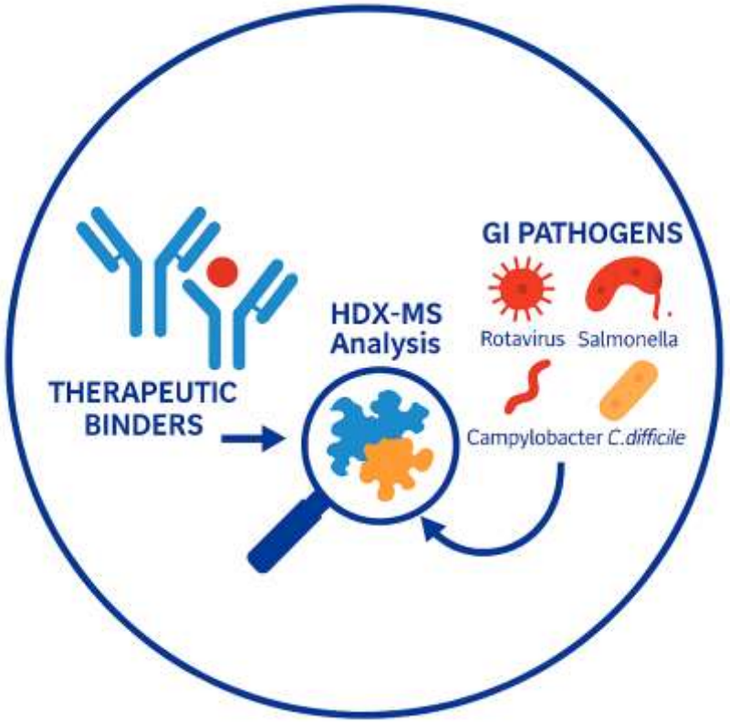
- CoSAXS at MAX IV
- DMSC at ESS
- Hartmann-Petersen & Bordallo's lab at UCPH

Project participants

- Heloisa Nunes Bordallo (UCPH)
- Rasmus Hartmann-Petersen (UCPH)
- Tomás Plivelic (MAXIV)
- Henrik Jacobsen (ESS)
- Thomas Holm-Rod (ESS)
- Fábio Rocha Formiga (Oswaldo Cruz Foundation)
- José Enedilton Medeiros Pereira (ESS-Bilbao)
- Félix Jimenez-Villacorta (ESS-Bilbao)
- Drew Murray (Photothermal Spectroscopy Corp. GmbH)

Structural characterization of virulence factor-blocking antibody-derived Binding Proteins

Nikolina Sekulic, University of Oslo



What if the key to better antibody design lies in experimentally validating predicted molecular interactions?

HALRIC partners

- University of Oslo (UiO)
- Technical University of Denmark (DTU)
- Bactolife (Industry partner)

Research infrastructures

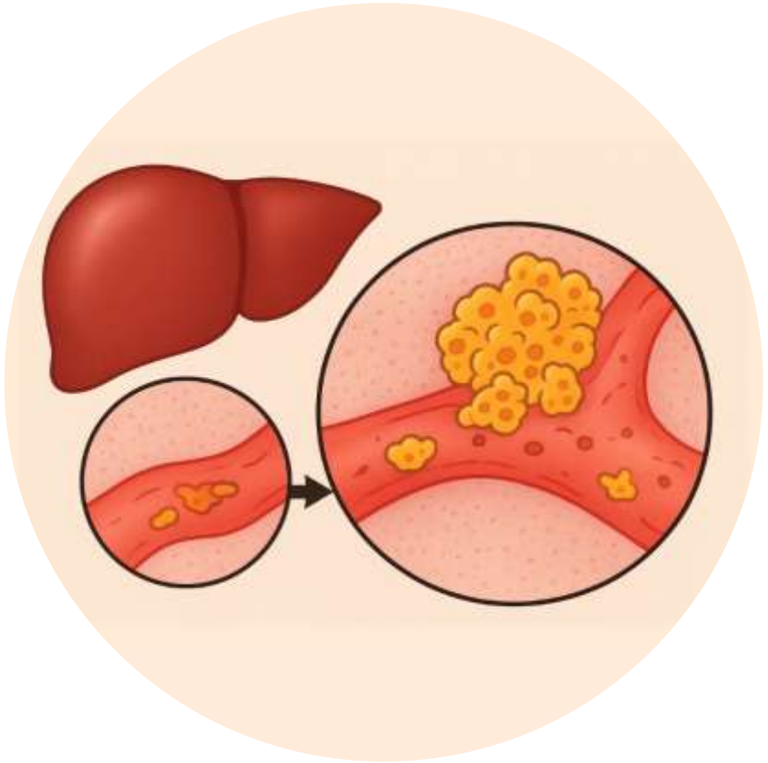
- UiO Structural Biology Core Facilities HDX-MS
- Digital Biotechnology Lab cluster & DTU HPC cluster

Project participants

- Nikolina Sekulic (UiO)
- Timothy Patrick Jenkins (DTU)
- Sandra Wingaard Thrane (Bactolife)

High-resolution 3D X-ray scanning and metabolomics to characterize microvascular invasion in surgical patients with hepatocellular carcinoma

Jakob Øster, Rigshospitalet



What if the most decisive sign of liver cancer progression is hidden just beyond the limits of 2D vision?

HALRIC partners

- Rigshospitalet (REGH)
- University of Copenhagen (UCPH)
- MAX IV Laboratory
- Technical University of Denmark (DTU)
- Lund University (LU)

Research infrastructures

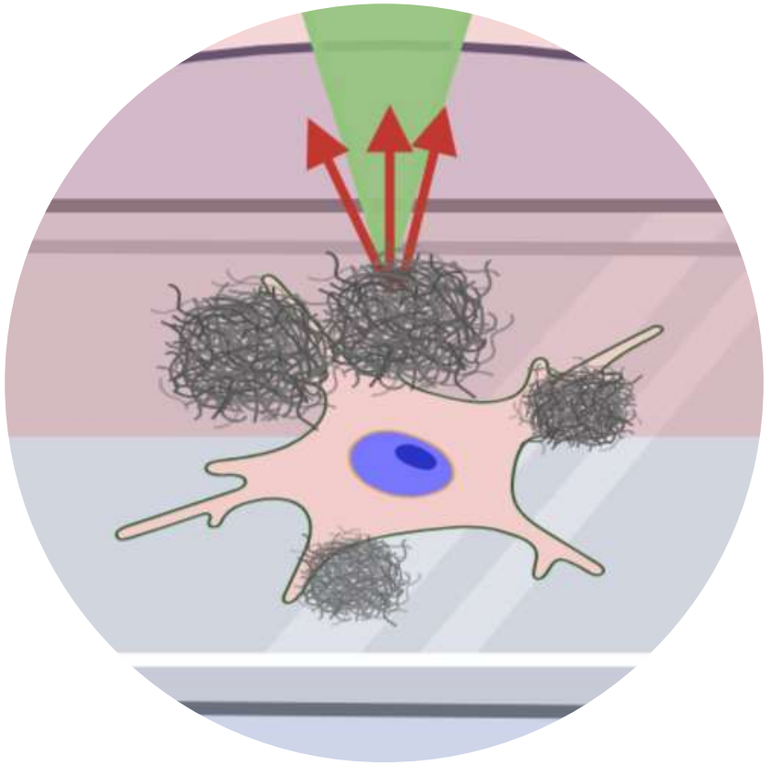
- 3DIM/DanMAX at MAXIV
- Exiscope Polaris at DTU
- Correlative Image Processing and Analysis Image (CIPA)
- InfraVis

Project participants

- Hans-Christian Pommergaard (REGH)
- Diana Elena Renteria Ramirez (REGH)
- Susanne Dam Poulsen (REGH)
- Gro Linno Willemoe (REGH)
- Stinna Dalsgaard Schnabl (REGH)
- Tobias Todsen (REGH)
- Jesper B Andersen (UCPH)
- Colm O'Rourke (UCPH)
- Arash Panahifar (MAXIV)
- Rajmund Mokso (DTU)
- Chengpeng Wu (DTU)
- Emanuel Larsson (LU)
- Jonas Ahlstedt (LU)

High-throughput analysis of PSMα1 conformations in cellular interactions

Sambhasan Banerjee, DESY



What if antibiotic-resistant bacteria owe their virulence not just to their genes, but to the shape their proteins take?

HALRIC partners

- Deutsches Elektronen-Synchrotron (DESY)
- Lund University (LU)
- Skåne University Hospital (SUS)

Research infrastructures

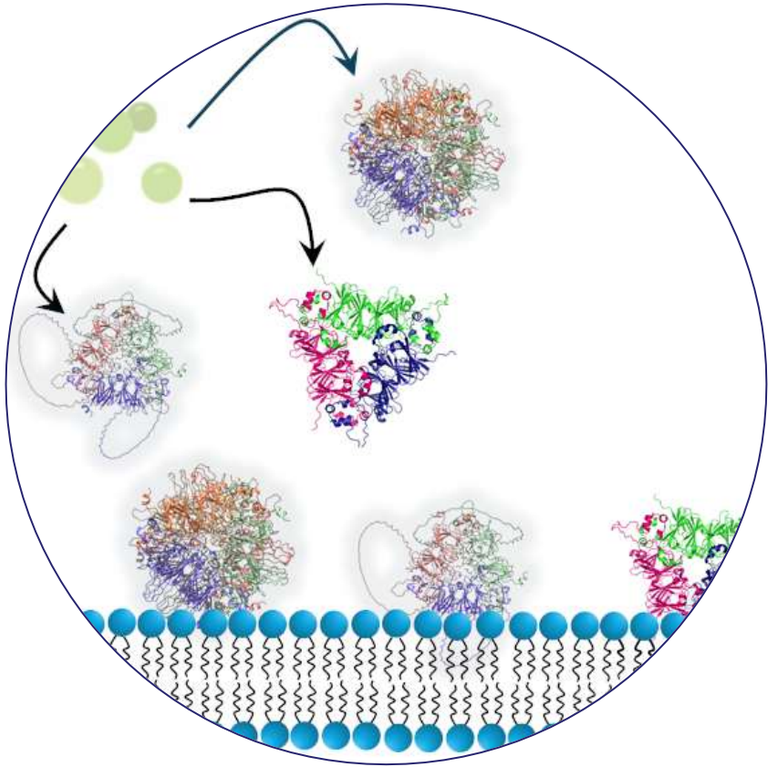
- Centre for Structural Systems Biology (CSSB) core facilities
- PETRA III at DESY
- OPTIR/NanoIR at LU

Project participants

- Meytal Landau (DESY)
- Sambhasan Banerjee (DESY)
- Oxana Klementieva (LU)
- Pyotr Platonov (SUS)

Seed to sustainability: Exploring plant storage proteins for a greener future

Antara Pal, Malmö University



What if the smallest "impurities" in plant proteins have the biggest impact on how our food behaves?

HALRIC partners

- Aarhus University (AU)
- Malmö University (MaU)

Research infrastructures

- CoSAXS at MAX IV Laboratory
- ASTRID at AU

Project participants

- Jan-Skov Pedersen (AU)
- Milena Corredig (AU)
- Ruifen Li (AU)
- Antara Pal (MaU)

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Panel discussion

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Sambhasan Banerjee
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High-throughput analysis of PSMα1 conformations in cellular interactions

Antara Pal
Malmö University

Seed to sustainability: Exploring plant storage proteins for a greener future

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Thank you!

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