UKD Universitätsklinikum Düsseldorf

THE BUSINESS LAB LIFE SCIENCE CENTER DÜSSELDORF

Life Science Innovation

Trends in Single Cell Analysis #13

The Sugar Code of Circulating Tumor Cells

Glycosylation in Detection, Metastasis and Therapy



Wednesday, November 25th, 2026

4 p.m. – 6 p.m. CET

Hybrid Meeting

Conference Center of the Life Science Center
Merowingerplatz 1, 40225 Düsseldorf
and Zoom

Registration

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LBCD Liquid Biopsy Center Düsseldorf

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The glycocalyx of a tumor cell is not a passive coating. Its glycans regulate cell adhesion, receptor signaling, migration and recognition by the immune system. During malignant transformation, changes in glycosyltransferase activity and glycan structure can support invasion, metastatic spread and resistance to therapy.

Circulating tumor cells (CTCs) carry this altered sugar code into the bloodstream. Their glycosylation may reveal functional properties that cannot be captured by genomic analysis alone and may provide new markers for CTC enrichment, characterization and therapeutic stratification. Yet glycan analysis on rare cells remains technically demanding and is still underexplored.

Three experts will connect complementary perspectives: the diversity and clinical relevance of the cancer glycome, tumor-specific O-mannosylation as a therapeutic vulnerability, and synthetic glycomimetics that target immune lectins.

Programme

Welcoming speech: Dr. Thomas Welfers, Managing Director, Düsseldorfer Innovations- und Technologiezentrum GmbH | Life Science Center Düsseldorf

› Academia

Moderation: Prof. Dr. Hans Neubauer, University Hospital Düsseldorf

- **The diversity and functionality of the cancer glycome: molecular mechanisms and clinical implications**

  Celso A. Reis, PhD, Research Coordinator and Professor, i3S – Institute for Research and Innovation in Health; ICBAS, University of Porto, Portugal

Moderation: Prof. Dr. Nikolas Stoecklein, University Hospital Düsseldorf

- **O-mannosylation and protein maturation checkpoints represent therapeutic opportunities in BRAF fusion protein oncogenesis**

  Anna Borgenvik, PhD, Researcher/Scientist, Department of Immunology, Genetics and Pathology, Uppsala University, Sweden

Moderation: Dr. André Franken, University Hospital Düsseldorf

- **Mono- and Multivalent Glycomimetics Targeting Immune Lectins as Novel Tools for Medicinal Chemistry**

  Jonathan Cramer, PhD, Institute for Pharmaceutical and Medicinal Chemistry, Heinrich Heine University Düsseldorf, Germany

Organizer: LifeScience Center Düsseldorf and the Liquid Biopsy Center Düsseldorf (LBCD) of the University Hospital Düsseldorf

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Registration on: **luma.com/qp0els92**