

DAY 1 – 13 June 2024

08:15 - 08:50 **Registration & welcome coffee**

08:50 - 09:00 **Welcome words**

08:50 - 09:00

Evelien Van Hamme - VIB Technologies, BE

09:00 - 12:45 **Plenary session 1: Multi-Omics (1)**

Concert hall - Chair: Evelien Van Hamme

09:00 - 09:35

Spatial Multi-Omics Sequencing for Mapping Human Tissue Biology, Aging, and Diseases

Rong Fan - Department of Biomedical Engineering, Yale University, US

academic speaker

09:35 - 10:00

Highly-multiplexed, multiomic tissue mapping with single-cell resolution

George Emanuel - Cofounder & Director of Technology and Partnerships, Vizgen, US

company speaker

10:00 - 10:35

A spatiotemporal malignant cell trajectory underlies glioblastoma heterogeneity

Omer Bayraktar - Wellcome Sanger Institute, UK

academic speaker

10:35 - 11:10 Coffee break

11:10 - 11:35

High resolution mapping of the tumor microenvironment using integrated single-cell, spatial and in situ analysis

Koen De Gelas - Science and Technology Advisor, 10x Genomics, BE

company speaker

11:35 - 12:10

The spatial architecture of diseases from a multiomics perspective

Joakim Lundeberg - SciLifeLab, KTH Royal Institute of Technology, SE

academic speaker

12:10 - 12:15

Pitch 1: Employing multiomics immune profiling to unveil the landscape of a novel orthotopic murine NSCLC model: towards a more patient-relevant model

Lize Allonsius - VIB Center for Inflammation Research, Brussels, BE; Brussels Center for Immunology, VUB, BE

poster pitch

12:15 - 12:20

Pitch 2: Benchmarking the Efficacy and Scalability of Computational Methods for the Identification of Spatially Variable Genes

Zhijian Li - Broad Institute of MIT & Harvard, US; Massachusetts General Hospital, US; Harvard Medical School, US

poster pitch

12:20 - 12:25

Pitch 3: Sopa: a technology-invariant pipeline for analyses of image-based spatial-omics

Quentin Blampey - Institut Gustave Roussy, FR; MICS Laboratory, CentraleSupélec, FR

poster pitch

12:25 - 12:30

Pitch 4: Clearance of lipids from necrotic debris following acute liver injury

Sara Schuermans - Laboratory of Molecular Immunology, Rega Institute for Medical Research, KU Leuven, BE

poster pitch

12:30 - 12:35

Pitch 5: Integration of Spatial Transcriptomics and Mass Spectrometry Imaging using the Multi-omics Imaging Integration Tool

Maximilian Wess - Norwegian University of Science and Technology, NO

poster pitch

12:35 - 12:40

Pitch 6: Visualization and integration of spatially resolved multi-omics data via geometric optimal transport

Jian Wu - KTH Royal Institute of Technology, SE; Science for Life Laboratory, SE

poster pitch

12:40 - 12:45

The dawn of spatial interactomics: in situ proximity ligation as a method for functional understanding of proteins

Doroteya Raykova - Navinci, SE

sponsored talk

12:45 - 13:30 **Lunch**

13:00 - 13:45 **Workshop Navinci**

Concert hall [More info](#)

13:00 - 13:45

The dawn of spatial interactomics: in situ proximity ligation as a method for functional understanding of proteins

Doroteya Raykova - Navinci, SE

13:30 - 14:15 **Poster session 1** Odd numbers

14:15 - 16:20 **Parallel session 1: Multi-Omics (2)**

Concert hall - Chair: Sarah-Maria Fendt

14:15 - 14:50

Profiling the functional heterogeneity of hepatic macrophages in time and space

Charlotte Scott - VIB-UGent Center for Inflammation Research, BE

academic speaker

14:50 - 15:15

Spatial Biology at Scale, From Discovery to Spatial Signatures

Amélie Viratham - Akoya Biosciences, US

15:15 - 15:50

Vibrational rainbow (Vibrainbow): Being colorful makes a difference

Wei Min - Columbia University, US

academic speaker

15:50 - 16:15

True spatial multiomics: when RNA meets protein on the same section

Marco Cassano - Lunaphore Technologie, CH

company speaker

16:15 - 16:20

Differentiated Quantitative Performance in Spatial Biology

Oliver Braubach - Canopy Biosciences, US

sponsored talk

14:15 - 16:20 **Parallel session 2: Computational & data analysis or integration**

Kraakhuis - Chair: Isabelle Scheyltjens

14:15 - 14:50

AI-based spatial multi-omics data fusion

Alejandro Sifrim - KU Leuven, BE

academic speaker

14:50 - 15:15

Title tba

Nikolay Samusik - CEO Parhelia Biosciences, US

company speaker

15:15 - 15:50

Decoding cell fates through single-cell genomics, imaging, and machine learning

Jian Shu - Harvard Medical School, US

academic speaker

15:50 - 16:15

Cross-platform spatial multi-omics data integration

Marc Claesen - CEO Aspect Analytics, BE

company speaker

16:15 - 16:20

Analyzing 10x Visium Spatial data with QIAGEN CLC Genomics Workbench and IPA

Leif Schauser - QIAGEN Aarhus, DE

sponsored talk

16:20 - 16:55 **Coffee break**

16:55 - 18:05 **Plenary session 2: Keynotes**

Concert hall - *Chair: Theodore Alexandrov*

16:55 - 17:30

Studying tumor architecture by spatial metabolomics and transcriptomics

Itai Yanai - *NYU, Grossman School of Medicine, US*

academic speaker

17:30 - 18:05

Optimizing experimental design and data processing for targeted spatial experiments

Malte Luecken - *Helmholtz Munich, DE*

academic speaker

18:05 - 19:05 **Reception**

Foyer De Bijloke

19:05 - 22:00 **Social activity + Conference dinner**

Separate ticket.

- *Guided boat tour: 19h05 - 19h45*

- *Dinner: 19h45*

DAY 2 – 14 June 2024

08:30 - 09:00 **Welcome coffee**

09:00 - 12:45 **Plenary session 3: Spatial Proteomics**

Concert hall - *Chair: Kris Gevaert*

09:00 - 09:35

Mass Spectrometry Imaging: Spatial omics on a single cell level with high potential for clinical diagnostics

Eva Cuypers - Maastricht University, NL
academic speaker

09:35 - 10:00

Background-free Immunofluorescence with the MACSima Imaging System

Ali Kinkhabwala - Miltenyi Biotec, DE
company speaker

10:00 - 10:35

MS-based spatial omics forwards patient bedside at the operating room

Isabelle Fournier - PRISM Inserm U1192 University of Lille, FR
academic speaker

10:35 - 10:40

High-plex whole slide spatial biology assays for clinical translational research powered by the Hyperion Xti

Roberto Spada - Standard Biotech, FR
sponsored talk

10:40 - 11:10 - Coffee break

11:10 - 11:35

Microscopic Scooping for Subcellular Spatial Proteomics Discovery

Jung-Chi Liao - Syncell, TW
company speaker

11:35 - 12:10

A DNA toolbox for spatial biology from imaging to sequencing

Sinem Saka - European Molecular Biology Laboratory (EMBL), DE
academic speaker

12:10 - 12:15

Pitch 1: LIANA+: an all-in-one cell-cell communication framework

Daniel Dimitrov - Heidelberg University, Faculty of Medicine, and Heidelberg University Hospital, Institute for Computational Biomedicine, DE
poster pitch

12:15 - 12:20

Pitch 2: Enhanced Sensitivity of Spatially Resolved Stable Isotope Labeled Metabolite Imaging to map metabolic activity in Mouse Organs and Tumor Tissue

Siva Swapna Kasarla - Leibniz-Institut für Analytische Wissenschaften—ISAS—e.V., DE
poster pitch

12:20 - 12:25

Pitch 3: Single cell spatial and multi-omics data reveal the structure of tumorigenesis in medulloblastoma brain tumors

Konstantin Okonechnikov - Hopp Children's Cancer Center (KiTZ), DE; German Cancer Research Center (DKFZ), DE
poster pitch

12:25 - 12:30

Pitch 4: Revealing spatial expression patterns within cells with SPArrOW, a workflow for subcellular resolution spatial transcriptomics assays

Lotte Pollaris - VIB-UGent Center for Inflammation Research, BE; Ghent University, BE
poster pitch

12:30 - 12:35

Pitch 5: The spatial landscape of bladder cancer predicts treatment response

Mustafa Sibai - Josep Carreras Leukaemia Research Institute (IJC), ES; Barcelona Supercomputing Center (BSC), ES
poster pitch

12:35 - 12:40

Pitch 6: Mapping the complex spatial immune landscape of the brain borders

Mónica Vara-Pérez - (BSIL) & (BCIM), VUB, BE & VIB Center for Inflammation Research, BE
poster pitch

12:40 - 12:45

A comprehensive overview of the Stereo-Seq technologies with the T7

Nassim Homayun - MGI, BE
sponsored talk

12:45 - 13:30 **Lunch**

13:00 - 13:45 **Workshop MGI**

Concert hall - [More info](#)

Stereoseq: Explore Spatial Biology as Never Before! Learn How Stereoseq Empowers Melanoma Research

Jean-Christophe Marine - VIB-KU Leuven Center for Cancer Biology, BE

13:30 - 14:15 **Poster session 2** Even numbers

14:15 - 16:20 **Parallel session 3: Metabolomics**

Kraakhuis - Chair: Johan Swinnen

14:15 - 14:50

Spatial assessment of metabolism

Shawn Davidson - Northwestern University Feinberg School of Medicine, US
academic speaker

14:50 - 15:15

Redefining spatial biology with MALDI Imaging

Björn Wendik - Business Development Manager, Bruker Daltonics, US
company speaker

15:15 - 15:50

Exploring metabolic heterogeneity in tumours by mass spectrometry imaging

Josephine Bunch - National Physical Laboratory, UK
academic speaker

15:50 - 16:15

Spatial Multiomic MALDI-MS Imaging of Untargeted Small Molecules and Targeted Proteins, mRNA, and Glycans in Tissues and Single Cells using Mass-Tagged Probes

Mark Lim - Executive Vice President and CSO, Ambergen, US

company speaker

16:15 - 16:20

Spatial Biomarker Customer Case Studies

Mickael Meyrand - RareCyte, US

sponsored talk

14:15 - 16:20 **Parallel session 4: Emerging Technologies**

Concert hall - Chair: Martin Guillems

14:15 - 14:50

Extracellular regulators of cancer immunotherapy resistance

Brian Brown - Icahn School of Medicine, US

academic speaker

14:50 - 15:15

cellenONE for single cell and spatial proteomics

Anjali Seth - Head of Single Cell Proteomics, Cellenion, FR

company speaker

15:15 - 15:50

single-cell and spatial transcriptomics-based cancer drug and progression prediction

Lana Garmire - University of Michigan, US

academic speaker

15:50 - 16:15

Integrated Multiomic and Genomic Profiling for Precision Biology on the AVITI24 platform

Shawn Levy - Chief Scientific Officer, Element Biosciences, US

company speaker

16:15 - 16:50 **Coffee break**

16:50 - 18:00 **Plenary session 4: Keynotes**

Concert hall - Chair: Theodore Alexandrov

16:50 - 17:25

Multimodal Platform for Neuro-Oncology Drug Development

Nathalie Agar - Harvard Medical School, US

academic speaker

17:25 - 18:00

Single cell type resolved spatial proteomics in health and disease.

Matthias Mann - Max Planck Institute of Biochemistry, DE; University of Copenhagen, DK

academic speaker

18:00 - 18:10 **Closing words & poster prize**

Concert hall

Wai Long Tam - VIB Technologies, BE

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