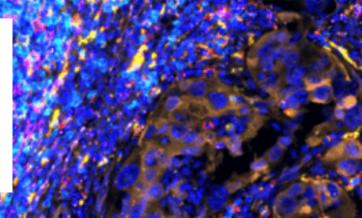
# **Spatial Biology**

SciLifeLab Science Summit 2024

Uppsala, October 1





### **Poster List**

- 1 The effects of acute and chronic inflammation on aortic function in Sprague-Dawley rats Ramsamy, Adalayne, University of the Witwatersrand
- 2 BioImage Informatics, SciLifeLab, Sweden Corbat, Agustin, Uppsala University
- A topographic lung cell atlas reveals regional variation in cell-type specific gene programs and identifies healthy and diseased cellular neighborhoods

  Firsova, Alexandra, Stockholm University
- 4 Strained Cyclooctynes with Photocages for Subcellular 3D Photolithographic Barcoding Larsson, Alfred, Uppsala University
- Molecular Pixelation: Spatial proteomics of single-cells by next generation sequencing Martinez Barrio, Alvaro, Pixelgen Technologies AB
- A Comprehensive Approach for Sequential MALDI-MSI Analysis of Lipids, N-Glycans, and Peptides in Rodent and Alzheimer's Brain Tissues

Lee, Yea Rin Olivia, Uppsala University

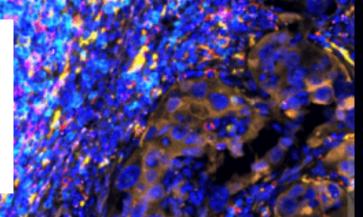
- 7 Spatial Transcriptomics @ NGI Mezger, Anja, KTH Royal Institute of Technology
- NBIS SciLifeLab Bioinformatics Platform Johansson, Anna, Uppsala University
- 9 Spatial metabolomics of Parkinson's Disease Dementia and Dementia with Lewy Bodies Nilsson, Anna, Uppsala University
- 10 Enabling high-content phenotyping in pooled CRISPR screens by in situ guide RNA readout Schmierer, Bernhard, Karolinska Institutet
- Investigating the impact of inter-organelle interactions on axonal transport in motor neuron models of neurodegeneration Williams, Chloe, Umeå University
- Metabolomics Platform
  Wegler, Christine, Umeå University
- 13 TissUUmaps: interactive visualization, exploration, and quality assessment of large-scale spatial omics data Avenel, Christophe, Uppsala University
- 14 SciLifeLab Proteomics Platform Fredolini, Claudia, KTH Royal Institute of Technology
- Quantifying the Spatial Coherence of DNA Barcode Networks Fernandez Bonet, David, KTH Royal Institute of Technology
- 16 FunCoup 6: advancing functional networks across species with directed links and improved user experience Buzzao, Davide, Stockholm University
- 17 Spatial Proteomics Unit
  O'Roberts, Eleanor, KTH Royal Institute of Technology
- Optimizing sample substrates for single-cell metabolomics Szombati, Eszter, Uppsala University
- 19 Clinical Genomics platform
  Berglund, Eva, Uppsala University
- A Tailored Data Handling Workflow for Metabolite Profiling of Single Cells Friedrich, Felix, Uppsala University
- A spatio-temporal atlas of human spermatogenesis based on single-cell transcriptomics and multiplex antibody imaging Hikmet, Feria, Uppsala University
- A high-resolution, large-scale method to study the subcellular location of proteins in ciliated cells Bertilsson, Filippa, Uppsala University

## **Spatial Biology**

SciLifeLab Science Summit 2024

Uppsala, October 1





### **Poster List**

- Multimodal imaging of oxidized cholesterol in multiple sclerosis lesions of human brain tissue Toth, Gabor, Uppsala University
- 24 The Cellular Molecular Imaging platform Blom, Hans, KTH Royal Institute of Technology
- 25 Hydrazide-based Reactive Matrices for the Sensitive Detection of Aldehydes and Ketones by MALDI MSI Loden, Henrik, Uppsala University
- 26 Integrative proteo-transcriptomic characterization of advanced fibrosis in chronic liver disease across etiologies Yang, Hong, KTH Royal Institute of Technology
- Mass spectrometry imaging reveals region-specific alterations of brain lipids induced by parkinsonism and L-DOPA-induced dyskinesia
  Kaya, Ibrahim, Uppsala University
- Mass Spectrometry Imaging Provides Insights Into The Fate Of Carnitine And Acylcarnitines In Ischemic Mouse Brain Lanekoff, Ingela, Uppsala University
- 29 Untangling the Complexity of Lewy Body Disorders Using Spatial Proteomics Sutevski, Iva, KTH Royal Institute of Technology
- 30 Training Hub Mission and Vision Jaworski, Jill, Stockholm university
- 31 InfraLife Lundgren Gawell, Josefin, SciLifeLab
- Integrated RNA and protein profiling in the same tissue section: deciphering tumor microenvironment dynamics via automated spatial multiomics analysis

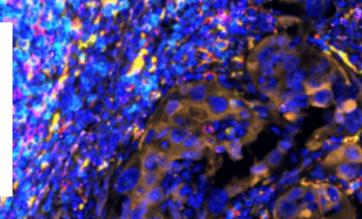
  Zaborowska, Justyna, Lunaphore
- 33 Spatial Transcriptomics As A Complete Service At The Scilifelab National Genomics Infrastructure From Tissue To Gene Counts Bachmann, Jörg, Stockholm University
- 34 Implementation of spatial transcriptomics to study the murine enteric nervous system Phipps, Lauren, Karolinska Institutet
- Single Cell Map Of The Human Ovarian Cortex: Unravelling Molecular Dynamics From Birth To Reproductive Maturity And Across
  Treatment Exposures
  Méar, Loren, Karolinska Institutet
- Novel quantitative mass spectrometry imaging strategy using the method of standard addition Davidová, Lucie, Uppsala University
- 37 Computational inference reveals cancer lineages and identifies early markers of tumor invasion Tarbier, Marcel, Karolinska Institutet
- Mapping the effect of fludarabine in leukemia cells using single-cell spatial proteomics Globisch, Maria, Uppsala University
- The Swedish National Genomics Infrastructure (NGI)
  Hägglund, Maria, Uppsala University
- Spatially mapping lipid mediator heterogeneity in pulmonary tissue using targeted mass spectrometry imaging Smith, Matthew James, Karolinska Institutet
- Sensitivity validation to DSB signatures in XRCC4 and DNA-PKcs deficient colorectal cancer cells Hariri, Mehran, Uppsala University
- 42 Integration of Spatial Transcriptomics and Function in Pancreatic Disease Progression Dalman, Mercedes Aline Joy Petenera, University of Gothenburg
- Host-pathogen interactions in the Plasmodium-infected mouse liver at spatial and single-cell resolution Urrutia, Miren, Stockholm University
- The transcription factor LHX2 mediates and enhances BMP signaling in Medulloblastoma Ali, Mohamad, Uppsala University

## **Spatial Biology**

SciLifeLab Science Summit 2024

Uppsala, October 1





### **Poster List**

- In situ detection and subcellular localization of 5,000 genes using Xenium Analyzer in cancer tissue samples Van Houts, Patrick, 10x Genomics
- 46 Met-ID: An Open-Source Software for Comprehensive Annotation of Multiple On-Tissue Chemical Modifications in MALDI-MSI Bjärterot, Patrik, Uppsala University
- In Situ Sequencing Facility. Targeted Spatial Transcriptomics Spalinskas, Rapolas, Stockholm University
- Quantitative Mass Spectrometry Imaging of neurotransmitters using standard addition methods Shariatgorji, Reza, Uppsala University
- The neurophysiological effects of CBD on the regional expression of inflammatory markers and oxidative properties in a healthy rodent model

  Xhakaza, Sanelisiwe, University of the Witwatersrand
- Nuclear export-based RNA velocity models to explore cellular dynamics in situ Marco Salas, Sergio, Stockholm University
- Hidden network preserved in Slide-tags data allows reference-free spatial reconstruction Kolmodin Dahlberg, Simon, KTH Royal Institute of Technology
- Mass spectrometry imaging identifies AAS-specific changes in monoamine neurotransmitter signaling and metabolism, together with alterations in the brain lipidome of the male rat brain Zelleroth, Sofia, Uppsala University
- Molecular Pixelation: Spatial proteomics of single cells by next generation sequencing Petkov, Stefan, Pixelgen Technologies
- Development of an Ultra High-Plex Antibody Panel for Spatial Phenotyping of Murine Cancer Models Logan, Stuart, Akoya Biosciences Inc.
- Origin, structure, and composition of the spider major ampullate silk fiber revealed by genomics, proteomics, and single-cell and spatial transcriptomics
  Sonavane, Sumalata, Swedish University of Agricultural Sciences
- The Live Cell Imaging core facility at KI Flemingsberg campus Le Guyader, Sylvie, Karolinska Institutet
- 57 Spatial profiling of RNA of insulin-producing beta cells on human biopsies and pancreatic islets Pereira, Teresa, Uppsala University
- Activation of the NLRP3 inflammasome drives dysregulation of the heart-brain axis in chronic, systemic inflammation Maluleke, Tiiso, University of the Witwatersrand
- Unraveling the molecular mechanisms of spider glue production: Insights from single-cell RNA sequencing and spatial transcriptomics
  Fietze, Tobias, Karolinska Institutet
- Integrating in situ Proximity Ligation Assay for PD1-PDL1 interaction with multiplexed immunofluorescence imaging Ullman, Tony, KTH Royal Institute of Technology
- Parallel data acquisition for multiplexed mass spectrometry imaging enables isobaric and isomeric resolution Sharma, Varun, Uppsala University
- 62 Spatial Transcriptomics in non-model organisms at NGI Abalo, Xesus, KTH Royal Institute of Technology
- Detection of protein-protein interactions by bio-orthogonal fluorogenic proximity probes
  Torell, Andreas, Uppsala University
- Chemoselective primer extension for sequencing in fixed and living cells Yuan, Chengxiang, Cold Spring Harbor Laboratory
- Spatial omics analysis reveals immune diversity and landscape Kashima, Yukie, The University of Tokyo