

# Monday

## Bioimaging

### Chair Per Ljungdahl

- 09:00 Opening note - Per Ljungdahl, SciLifeLab Campus Solna Director
- 09:05 **Ilaria Testa** (KTH), A new observable window into living cells at high spatio-temporal resolution
- 09:15 **Taras Sych** (KI), Biophysical characterization of nano-sized physiological lipid particles with fluorescence fluctuometry
- 09:25 **Linnea Nordahl** (KTH), Interactions within the Na/K-ATPase
- 09:35 **Hans Blom** (KTH), Diagnosis of kidney diseases with all scale optical microscopy
- 09:45 *Q&A with speakers*
- 10:00 *Break*

## Cellular and Molecular Biology

### Chair: Marcel Tarbier

- 10:10 **Lucie Delemotte** (KTH), Elucidation of G protein-coupled receptor activation via data-driven modeling
- 10:20 **Alexey Amunts** (SU), Structural studies of bioenergetic complexes
- 10:30 **Fitz Gerald S. Silao** (SU), Proline assimilation is intrinsic to the opportunistic ecophagy of *Candida albicans*-infected hosts
- 10:40 **Paul Hudson** (KTH), Engineering the microbial Calvin cycle for bio-sustainability applications
- 10:50 *Q&A with speakers*
- 11:05 *Break*

## Cellular and Molecular Biology

### Chair: Vicent Pelechano

- 11:15 **Eleni Gelali** (KI), Deconvolf: a free deconvolution software that can facilitate imaging-based spatially resolved omics
- 11:25 **Lukas Käll** (KTH), Survival Analysis Based on Cancers' Pathway Activity
- 11:35 **Maurice Grube** (KI), Small molecule activation of OGG1 increases base excision repair by gaining a new enzymatic function
- 11:45 **Banushree Kumar** (KI), Function of PRC2 in naïve and primed human pluripotency
- 11:55 *Q&A with speakers*
- 12:10 *End of day*

# Tuesday

## Nucleic Acids and Multi-omics

### Chair: Alexey Amunts

- 09:00 Opening note
- 09:05 **Stefania Giacomello** (KTH), Understanding the impact of spaceflight on mouse brain and heart by using spatial multiomics methods
- 09:15 **Marc Friedländer** (SU), Ancient RNA - possibilities and challenges
- 09:25 **Christian Sommerauer** (KI), Are female sex hormones the key to preventing liver diseases?
- 09:35 **Claudia Kutter** (KI), High resolution RAPseq identifies functional propensities of RNA binding proteins in diseases and species evolution
- 09:45 Q&A with speakers
- 10:00 Break

## Nucleic Acids and Multi-omics

### Chair: Alexey Amunts

- 10:10 **Paula Pierozan** (SU), re common per- and polyfluoroalkyl substances linked to breast cancer? -mechanistic studies by high-content screening and DNA methylation analysis
- 10:20 **Kristoffer Sahlin** (SU), Strobemers: an alternative to k-mers for sequence comparison, clustering, and alignment
- 10:30 **Alisa Alekseenko** (KI), OPUS-seq: One Pot Double Stranded UMI Sequencing
- 10:40 **Lilit Nersisyan** (KI), RNA degradation analysis reveals ribosome dynamics in complex microbiome samples
- 10:50 Q&A with speakers
- 11:05 Break

## Nucleic Acids and Multi-omics

### Chair: Vaishnovi Sekar

- 11:15 **Cecilia Williams** (KTH), Colorectal cancer development: sex differences and impact of estrogen
- 11:25 **Erik Sonnhammer** (SU), Network-based pathway analysis and drug repurposing, with application to COVID-19
- 11:35 **Jean Hausser** (KI), Quantitative principles of tumor micro-architecture
- 11:45 **Boyang Guo** (KTH), The perfect fit: enzyme and substrate conformations in plastic degradation
- 11:55 Q&A with speakers
- 12:10 End of day

# Wednesday

## **Epidemiology and Diagnostics**

**Chair: Lucie Rodriguez**

- 09:00 Opening note
- 09:05 **Petter Brodin** (KI), Human systems immunology
- 09:15 **Ludvig Larsson** (KTH), Molecular characterization of the mouse intestine
- 09:25 **Jochen Schwenk** (KTH), Decoding clinical heterogeneity with the circulating proteome
- 09:35 **Tea Dodig-Crnkovic** (KTH), Multiplexed analysis of the GPCR-RAMP interactome
- 09:45 Q&A with speakers
- 10:00 Break

## **Epidemiology and Diagnostics**

**Chair: Aditi Shenoy**

- 10:10 **Peter Nilsson** (KTH), Development of a multiplex COVID-19 serology
- 10:20 **Mats Nilsson** (SU), The single cell- and spatial biology platform
- 10:30 **Isabelle Leo** (KI), Using proteomics to guide translational study of biology and biomarkers in childhood ALL
- 10:40 **Aman Russom** (KTH), Life at the micro- and nanoscale: microfluidics for clinical applications
- 10:50 Q&A with speakers
- 11:05 Break

## **New Recruitments**

**Chair: Disa Hammarlöf**

- 11:15 **Iskra Pollak Dorocic** (SU), Deciphering the molecular, anatomical and functional diversity of neuromodulatory neurons
- 11:25 **Anniina Vihervaara** (KTH), Coordinating transcription at physically-linked genes and enhancers in stress and development
- 11:35 **Saeed Shoaie** (KTH), Global and temporal state of human microbiome
- 11:45 **Tuuli Lappalainen** (KTH), Functional variation in the human genome: lessons from the transcriptome
- 11:55 Q&A with speakers
- 12:10 **Science communication awards**
- 12:15 **Closing note - Olli Kallioniemi, Director SciLifeLab**