

Science Talks

Campus Solna SciLifeLab research symposium 2020



Session I - 26 august 2020

Moderator: Per Ljungdahl

- 09:00** **Opening note**
Per Ljungdahl, Campus Solna Director
- 09:10** **GPSeq reveals radial genome organization at high resolution**
Magda Bienko, Karolinska Institutet
- 09:30** **Illuminating the origins of DNA copy number variation by single-cell sequencing**
Nicola Crosetto, Karolinska Institutet
- 09:50** **Understanding the importance of dynamics in efficient plastic degradation by designer enzymes**
Per-Olof Syrén, KTH
- 10:10** **Intestinal estrogen receptor beta suppresses colon inflammation and tumorigenesis in both sexes**
Amena Archer, KTH
- 10:30** **Break out rooms - meet the speakers**
- 10:45** **Coffee Break**

Session II

Moderator: Simon Elsässer

- 11:00** **Human systems immunology**
Petter Brodin, Karolinska Institutet
- 11:20** **Drug discoveries and public-private partnerships in translational microbiome research**
Lars Engstrand, Karolinska Institutet
- 11:40** **Single cell proteome heterogeneity of human cells**
Emma Lundberg, KTH
- 12:00** **Lung cell heterogeneity and its impact on tissue plasticity**
Christos Samakovlis, Stockholm University
- 12:20** **Break out rooms - meet the speakers**
- 12:35** **Short break**

Session III

Moderators: Christian Sommerauer & Aswathy Kallazhi

- 12:40** **GPSeq reveals the radial landscape of chromatin and genomic alterations in the human cell nucleus**
Gabriele Girelli, Karolinska Institutet
- 12:50** **Deciphering the roles of sex hormones in the human immune system**
Camila Consiglio, Karolinska Institutet
- 13:00** **Characterization of genetic regions at high risk for differential population response across chemical classes**
Marissa Kosnik, Stockholm University
- 13:10** **Break out rooms - meet the speakers**
- 13:25** **End of session**

Session IV- 27 august 2020

Moderator: Alexey Amunts

- 09:00** **Longitudinal analysis of molecular and digital health profiles during lifestyle changes**
Francesco Marabita, Karolinska Institutet
- 09:20** **The use of systems biology in treatment of liver diseases**
Adil Mardinoglu, KTH
- 09:40** **Views and clues about the circulating proteome**
Jochen Schwenk, KTH
- 10:00** **Exploring the human proteins to understand biology and disease and to develop therapeutic drugs**
Mathias Uhlén, KTH
- 10:20** **Break out rooms - meet the speakers**
- 10:35** **Coffee Break**

Session V

Moderator: Kristina Jonas

- 10:50** **Aquatic microbial diversity, functions and interactions**
Sarahi Garcia, Stockholm University
- 11:10** **A ribosome pause-site regulates the translation of the bacterial DNA replication initiator DnaA in response to nutrient starvation**
Michele Felletti, Stockholm University
- 11:30** **Investigating ribosome dynamics by 5'P mRNA degradome sequencing**
Vicent Pelechano, Karolinska Institutet
- 11:50** **Exploring the small proteome**
Simon Elsässer, Karolinska Institutet
- 12:10** **Break out rooms - meet the speakers**
- 12:25** **Short break**

Session VI

Moderators: Dörte Schlesinger & Eva Brinkman

- 12:30** **Site specific incorporation of two non-canonical amino acids for two-colour bioorthogonal labelling and chemical-controlled**
Birthe Meineke, Karolinska Institutet
- 12:40** **Large-scale identification of RBP-RNA interactions by RAP-seq refines essentials of post-transcriptional gene regulation**
Ionut Atanasiu, Karolinska Institutet
- 12:50** **Tandem talk: A LAMP assay for detection of SARS-CoV-2 using in-house produced enzymes**
Yerma Pareja-Sánchez, Karolinska Institutet & Rebecca J Howard, Stockholm University
- 13:00** **Break out rooms - meet the speakers**
- 13:15** **End of session**
- 17:00** **Pub Quiz**
Organised by the PhD Council

Session VII - 28 august 2020

Moderator: Lucie Delemotte

- 09:00** **Deciphering modulation of ligand-gated ion channels**
Erik Lindahl, Stockholm University
- 09:20** **Understanding the biophysical principles of immune signalling**
Erdinc Sezgin, Karolinska Institutet
- 09:40** **Life cell imaging at the nanoscale**
Ilaria Testa, KTH
- 10:00** **Mechanisms that underlie the initiation and resolution of inflammatory bowel disease**
Eduardo Villablanca, Karolinska Institutet
- 10:20** **Break out rooms - meet the speakers**
- 10:35** **Coffee Break**

Session VIII

Moderator: Emma Lundberg

- 10:50** **Navigating quantitative proteomics-based networks to gain knowledge on proteome biology in cancer**
Janne Lehtiö, Karolinska Institutet
- 11:10** **Transcriptional landscapes in health and disease using AI for tissue images and transcriptomes**
Joakim Lundberg, KTH
- 11:30** **High resolution anatomical mapping of gene expression using targeted in situ sequencing**
Mats Nilsson, Stockholm University
- 11:50** **Error correction and alignment of long-read transcriptome sequencing data**
Kristoffer Sahlin, Stockholm University
- 12:10** **Break out rooms - meet the speakers**
- 12:25** **Short break**

Session IX

Moderators: Marcel Tarbier & Vaishnovi Sekar

- 12:30** **RIF-Seq (RNA isolation free sequencing): an innovative platform integrating RNA-seq with high throughput compound screening**
Tomasz Krzywkowski, Stockholm University
- 12:40** **The role of entropy in the evolutionary history of proteins captured by Ancestral Sequence Reconstruction**
David Hueting, KTH
- 12:50** **The impact of mobility patterns on COVID-19 infection rates**
Patrick Bryant, Stockholm University
- 13:00** **Break out rooms - meet the speakers**
- 13:15** **Closing note from SciLifeLab**
Visualizing research at SciLifeLab Campus Solna - Digital Vernissage & Winner announcement
Olli Kallioniemi, Director SciLifeLab