



SciLifeLab Infrastructure outreach week

January 24-27, 2022 on Zoom

During four sessions we would like to highlight our capabilities to provide services within the research areas 1) drug discovery, 2) precision medicine, 3) ecosystem surveillance and evolutionary biology and 4) structural biology.

We will present relevant technologies available at SciLifeLab and illustrate their utilization by user cases related to the topic of each session

Is your idea ready for drug discovery?

January 24, at 13:00 – 15:00

Moderators: Anna-Lena Gustavsson and Per Arvidsson



- 13:00 **Welcome and Introduction,**
Anna-Lena Gustavsson, *Chemical Biology Consortium Sweden*
Per Arvidsson, *Drug Discovery and Development platform*
- 13:10 **Antibody-based radiotherapy of advanced thyroid carcinoma,**
Marika Nestor, *Uppsala University*
- 13:30 **Chemical Biology and Genome Engineering platform – capabilities, expertise, technologies, examples**
Bernhard Schmierer, *CRISPR Functional Genomics*
- 13:50 **From a phenotypic screen in academia to an industrial partnership,**
Sonia Lain, *Karolinska Institutet*
- 14:10 **Drug Discovery and Development platform - capabilities, expertise, technologies, examples,**
Kristian Sandberg, *Drug Discovery and Development platform*
- 14:20 **New Treatment in non-alcoholic steatohepatitis: My Infrastructure Experience,**
Margit Mahlapuu, *University of Gothenburg*
- 14:40 **Panel discussion Q&A**
- 15:00 **Concluding remarks**

Towards enabling Precision and Translational Medicine

January 25, at 11:00 – 13:00



Moderator: Päivi Östling, *Karolinska Institute*

11:00 Welcome and Introduction,
Päivi Östling, *Karolinska Institute*

11:20 Towards precision medicine in myelodysplastic syndromes,
Eva Hellström Lindberg, *Karolinska Institute*

11:35 Data-driven molecular hallmarks of acute myeloid leukemia
Tom Erkers, *Karolinska Institute*

11:50 Break

12:00 A plunge into the complex immune response to malaria
Christopher Sundling, *Karolinska Institute*

12:15 Single cell immune landscape of human neuroblastoma
Shahrazad Shirazi Fard, *Karolinska Institute*

12:30 Gestational diabetes and obesity in the PONCH study: metabolic consequences for mother and child,
Ulrika Andersson Hall, *University of Gothenburg*

12:45 Panel discussion Q&A

13:00 *End of the program*

Evolution, molecular ecology and environment

January 26, at 10:00 – 12:00

Moderator: Magnus Lundgren, *Uppsala University*



- 10:00 [Welcome and Introduction,](#)
Olga Vinnere-Pettersson, *SciLifeLab National Genomics Infrastructure*
- 10:15 [Early Pleistocene DNA unravels the genomic history of mammoths,](#)
Love Dalén, *Swedish Museum of Natural History*
- 10:30 [Characterization of complex host-parasite systems for understanding their interactions,](#)
Maliheh Mehrshad, *SLU*
- 10:45 [Using RNA Sequencing to study interactions between forest trees and root associated fungal species,](#)
Nathaniel Street, *Umeå University*
- 11:00 [Break](#)
- 11:15 [Evolution of Cellular Complexity in Bacteria,](#)
Siv Andersson, *Uppsala University*
- 11:30 [Sequencing the supergene that governs Darwin's "different forms of flowers"](#)
Tanja Slotte, *Stockholm University*
- 11:45 [Panel discussion Q&A](#)
- 12:00 [End of the program](#)

Visualising life at the molecular level

January 27, at 10:00 – 12:00

Moderator: Marta Carroni, Stockholm University



- 10:00 Welcome and Introduction,
- 10:20 Characterizing host-pathogen interactions by integrative structural biology,
Lotta Happonen, *Lund University*
- 10:35 Cooperativity of α -synuclein binding to lipid membranes
Katarzyna Makasewicz, *Lund University*
- 10:50 Break
- 11:00 In-situ and in-cell NMR deciphering the processes in neurodegeneration,
Irena Matečko-Burmann, *University of Gothenburg*
- 11:15 Omics of sleep loss,
Jonathan Cedernaes, *Uppsala University*
- 11:30 Structure of the native Mega-dalton pyruvate dehydrogenase complex reveals the mechanism of substrate insertion,
Pål Stenbecks, *Stockholm University*
- 11:45 Panel discussion Q&A
- 12:00 End of the program



SciLifeLab has been created by the coordinated effort of four universities in Stockholm and Uppsala: Stockholm University, the Karolinska Institutet, KTH Royal Institute of Technology and Uppsala University.