novo nordisk foundation **Science** Cluster

**Conference 2023** 27 November - 1 December

# Protei Staling in space and time

Programme



## Monday 27 November 2023

17:30 - 19:00	Dinner at Favrholm
19:00 - 19:15	Official Opening by Novo Nordisk Foundation Welcome by Thomas Bentin, Senior Scientific Manager, Novo Nordisk Foundation
19:15 - 20:15	SESSION 1: Opening session with keynote lecture
	Welcome by committee chair: Michael Lund Nielsen
	INVITED SPEAKER: Drew Berry, The Walter and Eliza Hall Institute of Medical Research (WEIH), Australia Generative, dynamic models of organelles, chromatin and cytokine signaling
	CHAIR: Lars Juhl Jensen
20:15 - 22:30	Drinks & Networking

## Tuesday 28 November 2023

09:00 - 10:30	SESSION 2: Spatial omics technology
	INVITED SPEAKER: Rong Fan, Yale University, United States Spatial multi-omics sequencing to map tissue development, aging and diseases
	SHORT TALK: Marco Hein, Max Perutz Labs, Medical University of Vienna, Austria Systematic immuno-capture of native organelles defines a spatial map of the human proteome
	INVITED SPEAKER: Kathryn S Lilley, University of Cambridge, United Kingdom System-wide analysis of RNA and protein subcellular localisation dynamics
	CHAIR: Jesper V Olsen
10:30 - 11:00	Coffee break
11:00 - 12:45	SESSION 3: Protein structure
	INVITED SPEAKER: Jan Löwe, MRC Laboratory of Molecular Biology, Cambridge (MRC-LMB), United Kingdom Towards molecular understanding of FtsZ-based bacterial cell division
	SHORT TALK: Eva Kummer, Novo Nordisk Center for Protein Research, University of Copenhagen, Denmark RNA maturation in the mitochondrial ribosome by GTPBP10
	INVITED SPEAKER: Elizabeth R Wright, University of Wisconsin – Madison, United States Developments in correlative cryo-EM technologies to support in situ structural biology
	<b>SHORT TALK: Andreas Boland</b> , University of Geneva, Switzerland The structure of an extracellular nanobody bound to the μOR guides the development of novel therapeutics
	CHAIR: Nicholas Taylor
12:45 - 13:45	Lunch
13:45 - 15:00	SESSION 4: Post-translational modifications
	<b>INVITED SPEAKER: Pedro Beltrao</b> , ETH Zurich Institute of Molecular Systems Biology, Switzerland Predicting mechanisms of regulation for protein phosphorylation
	SHORT TALK: Gabriela Prus, Novo Nordisk Center for Protein Research, University of Copenhagen, Denmark A systems-scale, integrated view of the ubiquitylation site occupancy and dynamics
	INVITED SPEAKER: Ivan Ahel, University of Oxford, United Kingdom ADP-ribosylation signalling in genome stability and beyond
	CHAIR: Michael Lund Nielsen
15:00 - 16:30	POSTER SESSION

16:30 - 18:00	SESSION 5: Genome architecture
	INVITED SPEAKER: Giacomo Cavalli, Chromatin and Cell Biology lab, Institute of Human Genetics – CNRS and University of Montpellier, France Polycomb-mediated genome organization in development and cancer
	SHORT TALK: Fena Ochs, Biotech Research & Innovation Centre (BRIC), Denmark Sister chromatid cohesion is mediated by individual cohesin complexes
	INVITED SPEAKER: Daniel Gerlich, Institute of Molecular Biotechnology, Austria Chromosome dynamics during the cell cycle
	CHAIR: Nils Krietenstein
18:00 - 20:00	Dinner
20:00 - 22:00	PI Pub / Editors' Corner

# Wednesday 29 November 2023

09:00 - 10:30	SESSION 6: Genome maintenance
	INVITED SPEAKER: Eva R Hoffmann, University of Copenhagen, Denmark Sex-biased origins of chromosomal rearrangmenets in humans
	SHORT TALK: Sidrit Uruci, Leiden University Medical Center, The Netherlands Ciliary protein CFAP20 has a nuclear function in suppressing transcription-associated R-loops at promoter-proximal regions
	SHORT TALK: Aga Gambus, University of Birmingham, United Kingdom Regulation of DONSON function during DNA replication initiation
	SHORT TALK: Andrew Blackford, University of Oxford, United Kingdom BRCA1-BARD1 and BLM coordinate complementary mechanisms of joint DNA molecule resolution
	CHAIR: Niels Mailand
10:30 - 11:00	Coffee break
11:00 - 12:15	SESSION 7: Special guest keynote
	<b>INVITED SPEAKER: Morten Meldal</b> , Department of Chemistry, University of Copenhagen, Denmark Molecular click adventures. A leap from the shoulders of giants
	CHAIR: Anja Groth
12:15 - 12:30	Group Photo
12:30 - 13:30	Lunch
13:30 - 15:00	POSTER SESSION
15:00 - 16:30	SESSION 8: Protein design
	INVITED SPEAKER: Tom Muir, Princeton University, United States Harnessing inteins in synthetic biology: From triggers to logic gates
	SHORT TALK: Julian Naderi, Max Planck Institute for Molecular Genetics, Germany Enhancement of cellular reprogramming with transcription factors optimized for phase separation
	INVITED SPEAKER: Donald Hilvert, Federal Institute of Technology Zurich, Switzerland Design can pave the way to fully programmable enzyme catalysts
	CHAIR: Guillermo Montoya
16:30 - 17:30	Transport to social outing
17:30 - 21:30	Entertainment & Dinner
21:30 - 22:30	Transport to Favrholm

09:00 - 10:30	SESSION 9: Post-translational modifications
	INVITED SPEAKER: Mikhail Savitsky, European Molecular Biology Laboratory (EMBL), Germany Biophysical proteomics
	SHORT TALK: Hui Si Kwok, Harvard University, United States H3K36 Histone Lysine Methyltransferases play distinct roles in EZH2-mutant B-cell lymphoma
	INVITED SPEAKER: Michiel Vermeulen, Radboud University, The Netherlands Deciphering lineage specification during early embryogenesis using multi-layered proteomics
	SHORT TALK: Julio Liu, University of Copenhagen, Denmark Concerted SUMO-targeted ubiquitin ligase activities of TOPORS and RNF4 are essential for stress management and cell proliferation
	CHAIR: Chuna Choudhary
10:30 - 11:00	Coffee break
11:00 - 12:00	ROUND TABLE DISCUSSIONS
	Transition between Academia and Industry with Martin Miller and Mikhail Savitsky
	Bridging Basic and Translational Research with Donald Hilvert and Guillermo Montoya
	Transition to Independence: Junior PI's experience with Chiara Francavilla and Andrew Blackford
	Al in Research: ChatGPT and beyond with Lars Juhl Jensen, Søren Brunak, and Pedro Beltrao
	How to write a good paper with Dimitrios Typas, Giacomo Cavalli, and Jan Löwe
12:00 - 13:00	Lunch
13:00 - 14:30	SESSION 10: Proteomics
	INVITED SPEAKER: Francesca Ciccarelli, King's College London, United Kingdom Protein quantification to study the tumour microenvironment
	SHORT TALK: Thomas Naake, European Molecular Biology Laboratory, Germany MsQuality - an interoperable open-source package for the calculation of standardized quality metrics of mass spectrometry data
	INVITED SPEAKER: Jesper V Olsen, Novo Nordisk Foundation Center for Protein Research (CPR), Denmark Single cell proteomics with narrow-window DIA provides high proteome coverage
	CHAIR: Simon Rasmussen
14:30 - 15:00	Coffee break
15:00 - 16:30	SESSION 11: Protein structure & applications
	INVITED SPEAKER: Guillermo Montoya, Novo Nordisk Foundation Center for Protein Research (CPR), Denmark Understanding CRISPR-Cas dynamics and its allosteric mechanisms by cryo-EM
	SHORT TALK: Anna Jungblut, European Molecular Biology Laboratory, Germany Hexasome-INO80 complex reveals structural basis of non-canonical nucleosome remodeling
	INVITED SPEAKER: Nicolas H Thomä, Friedrich Miescher Institute for Biomedical Research, Switzerland Design principles for cyclin K molecular glue degraders
	CHAIR: Eva Kummer
16:30 - 16:45	Closing remarks by Michael Lund Nielsen, Chair of the Scientific Committee
16:45 - 19:00	Transportation Favrholm → Hotel Hillerød → Favrholm
19:00 - 19:30	Welcome drinks at Favrholm
19:30 - 02:00	Dinner & party

## Friday 1 December 2023

09:00	Check-out from hotels
09:00	Bus departure from Hotel Hillerød $\rightarrow$ Favrholm Campus $\rightarrow$ City centre $\rightarrow$ Copenhagen airport