

# SweProt 2024

## PROGRAM

### Friday June 14

16:30 – 18:00 Check-in

18:00 – 19:30 *Dinner*

#### Session I: Opening and The Svedberg Award Lecture

Chairs: Anna Sundborger-Lunna, Maria Selmer, Uppsala University  
Wolfgang Knecht, Umeå University

19:45 – 20:00 Welcome and Presentation of Keynote Speakers

20:00 – 20:15 Presentation of the The Svedberg Awardee

20:15 – 21:00 The Svedberg Award Lecture - Björn Reinius, Karolinska Institutet  
*Multiple routes to achieve sex-chromosome dosage compensation in our cells*

21:00 – 22:00 PI meeting

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### Saturday June 15

07:00 – 08:45 *Breakfast*

#### Session II: Protein Folding and Misfolding

Chair: Stefan Knight, Uppsala University

09:00 – 09:45 KEYNOTE - Amnon Horovitz, Weizmann Institute, Israel  
*Allostery and function of the chaperonin GroEL nano-machine*

09:45 – 10:05 Hannah Osterholz, Uppsala University  
*Native MS captures LLPS-specific binding of small molecules to human tau*

10:05 – 10:25 João Carlos Marcos, University of Minho  
*Experimental and computational elucidation of the inhibition of myoglobin aggregation by polyethylene glycol*

10:25 – 10:45 *Coffee*

#### Session III: Supramolecular Assemblies

Chair: Maria Selmer

10:45 – 11:30 KEYNOTE - Albert Weixlbaumer, IGBMC, France  
*RNA Polymerase Cooperation with the Ribosome during Translation Initiation*

11:30 – 11:50 Inna Rozman Grinberg, Stockholm University  
*ATP-cone: evolutionary mobile, structurally conserved domain with different regulatory functions*

11:50 – 12:10 Bozidar Duic, University of Gothenburg

*Deciphering the role of HtrA1 in inflammation and neurodegenerative diseases*

**12:10 – 13:30 Lunch**

**Session IV: Molecular Dynamics**

Chair: Sebastian Westenhoff, Uppsala University

**13:30 – 14:15 KEYNOTE** - Angela Gronenborn, University of Pittsburgh, USA

*The Lure of Fluorine - from Drugs to Cells*

**14:15 – 14:35** Leonardo Monroy, Uppsala University

*Microsecond time-resolved X-ray scattering by utilizing MHz repetition rate at second-generation XFEL*

**14:35 – 14:55** Wei-Sheng Sun, Umeå University

*Breaking Barriers: pCF10 Type 4 Secretion System relies on a self-regulating muramidase to modulate the cell wall*

**14:55 – 15:15 SPECIAL SELECTION:** Mattias Fink, Karolinska Institutet

*The heat shock protein LarA activates the Lon protease in response to proteotoxic stress*

**15:15 – 16:00 Coffee**

**Session V: Structural Biology Beyond Proteins**

Chair: Marco Marcia, Uppsala University

**16:00 – 16:45 EMBO Young Investigator Lecture** - Stephanie Jonas, ETH, Zurich

*Assembly mechanism of Integrator's RNA cleavage module*

**16:45 – 17:05** Shekhar Jadhav, EMBL/Uppsala University

*Structural insights into the assembly mechanism of a large multidomain ribozyme*

**17:05 – 17:25** Maximilian Vieler, Uppsala University

*Large-scale profiling E3-ligases reveals substrate binding specificity determinants*

**17:25 – 17:45** Jeena Manayath Thekkeyil, Max Planck Institute for Polymer Research

*Chaperons-inspired peptide nanofibers interrupt Cu (I) homeostasis in cancer cells*

**17:45 – 18:00** sponsored content (MiTeGen)

<https://www.youtube.com/watch?v=iPpOC3fWaEg>

**18:00 – 19:30 Dinner**

**20:00 – 21:30** Poster Session I

**21:30 – 00:00** Karaoke disco

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**Sunday June 16**

**07:00 – 08:45 Breakfast**

**Session VI: Theorell Award Lecture**

Chair: Ronnie Berntsson, Umeå University & SFBBM

**09:00 – 09:15** Presentation of The Theorell Awardee  
**09:15 – 10:00** Theorell Award Lecture - Gustav Berggren, Uppsala University  
*Title: Hydrogenases and microbial H<sub>2</sub> gas metabolism*

**10:00 – 10:30** *Coffee*

### **Session VII: Membranes**

Chair: Anna Sundborger-Lunna

**10:30 – 11:15** KEYNOTE - Alethea Tabor, UCL London, UK  
*Synthesis, Structure and Biophysics of Membrane-Active Antimicrobial Peptides*

**11:15 – 11:35** Arni Thorlacius, Uppsala University  
*BAR protein endophilin-B1 displays multiple assembly forms on artificial lipid discs*

**11:35 – 11:55** Mia Abramsson, Karolinska Institutet  
*Engineering cardiolipin binding to an artificial membrane protein*

**12:00 – 13:30** *Lunch*

### **Session VIII: From Atom to Cell**

Chair: Sebastian Deindl, Uppsala University

**13:30 – 14:15** KEYNOTE - Nico Thomä, FMI & EPFL, Switzerland  
*Nucleosomes gate cofactor access to the transcription factor p53*

**14:15 – 14:35** Ved Mehta, Stockholm University  
*Structure and electromechanical coupling of the sperm specific voltage gated Sodium/Proton exchanger SLC9C1*

**14:35 – 14:55** Felipe Otsuka, Lund University  
*Engineering stereospecificity in glycoside hydrolases through mutagenesis*

**14:55 – 15:25** *Coffee*

**15:25 – 18:00** Free time (Annual football match starts at 16.00)

**18:00 – 19:30** *Dinner*

**20:00 – 21:30** Poster Session II

**21:30 – 00:00** Pub Quiz

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## **Monday 17th June**

**07:00 – 09:00** *Breakfast*

### **Session IX: LINXS Drug Discovery**

Chair: Raminta Venskutonytė, Lund University/LINXS

**09:15 – 10:00** KEYNOTE - Flavio Ballante, Chemical Biology Consortium Sweden  
*Structure-guided exploration of commercial chemical space: the Chemical Space Navigator*

**10:00 – 10:20** Andreas Dunge, University of Gothenburg/AstraZeneca  
*Exploring serial crystallography for drug discovery*

**10:20 – 10:40** *Coffee*

**10:40 – 11:00** Marco Marcia, Uppsala University  
*Targeting the conserved active site of splicing machines with specific and selective small molecule modulators*

**11:00 – 11:20** Si Min Zhang, Karolinska Institutet  
*Tailor antimetabolite therapy by targeting host nucleos(t)ide kinase and phosphohydrolase*

**11:20 – 11:40** SPECIAL SELECTION: Viktoria Bågeholm, University of Copenhagen  
*Inhibition of a muscle chloride channel - structural and functional studies of ClC-1*

**11:40 – 12:00** Closing of meeting & Awards for best presentation and poster

**12:00 – 13:00** *Lunch + Departure*