12th - 13th June 2025

Niels K. Jerne Auditorium Panum, UCPH

SYMPOSIUM

CHEMICAL SOLUTIONS TO STRUCTURAL BIOLOGY





Organising Committee:

Morten Meldal (Chair), Dept. Chemistry, UCPH Karen Martinez (Vice-Chair), Dept. Chemistry, UCPH Claus Løland, Dept. Neuroscience, UCPH Nikos Hatzakis, Dept. Chemistry, UCPH

Hosted by:

The Integrative Structural Biology cluster at the University of Copenhagen



Funded by:

Novo Nordisk Foundation, Lundbeck Foundation and Carlsberg Foundation

novo nordisk **FOUNDBECK** foundation



PROGRAMME

Day One

11th June Level 15 Viewing Area, Mærsk Tower

WELCOME NETWORKING SESSION

Sponsored by Novo Nordisk Foundation

16:00 - 18:00

Registration and welcome reception with drinks and snacks

18:00 – 22:00

Speakers dinner (speakers and organisers only) at external restaurant

08:30 - 08:45

Registration

SESSION 1: BRIDGING STRUCTURAL BIOLOGY AND DRUG DISCOVERY

Sponsored by Lundbeck Foundation

08:45 – 09:00	Welcome Remarks: Morten Meldal (CSSB Chair)
09:00 – 10:00	Keynote Talk: Brian Kobilka (Stanford University) Title TBC
10:00 - 10:30	Coffee Break
10:30 - 10:55	Invited Talk: Jörg Rademann (Freie Universität Berlin) Biomimetics discovery from structure-based design and protein-templated reactions
10:55 – 11:20	Invited Talk: Annette Beck-Sickinger (Leipzig University) G Protein-coupled peptides receptors: from structure to innovative ligands and therapeutic concepts
11:20 - 11:45	Invited Talk: Nieng Yan (Tsinghua University) From sugar transporters to glycoconjugated ion channels
11:45 - 11:55	Flash Talk: TBC Title TBC
11:55 – 13:00	Lunch

SESSION 2: UNRAVELLING DYNAMIC CELL BIOLOGY BY CHEMICAL SYNTHESIS Sponsored by Novo Nordisk Foundation

13:00 - 14:00	Keynote Talk: Yamuna Krishnan (University of Chicago) Intracellular Electrophysiology
14:00 - 14:25	Invited Talk: Nynke Dekker (University of Oxford) Title TBC
14:25 - 14:50	Invited Talk: Patricia Bassereau (Institut Curie) Unraveling membrane protein dynamics and interactions at the single-molecule scale
14:50 - 15:00	Flash Talk: TBC Title TBC
15:00 - 15:30	Coffee

SESSION 3: TAILORING PROTEIN FUNCTION

Sponsored by Lundbeck Foundation

15:30 - 16:30	Keynote Talk: Don Hilvert (ETH Zurich) Designing enzymes de novo
16:30 - 16:55	Invited Talk: Kristian Strømgaard (University of Copenhagen) Targeting protein-protein interactions of receptor complexes with therapeutic peptides
16:55 - 17:20	Invited Talk: Knud Jensen (University of Copenhagen) Selective chemical modification of proteins: His tag acylation
17:20 - 17:30	Flash Talk: TBC Title TBC
17:30 – 20.00	Poster session with light bites and drinks

Day Three

SESSION 4: SYNTHETIC APPROACHES TO STRUCTURAL BIOLOGY Sponsored by Carlsberg Foundation

09:00 - 10:00	Keynote Talk: Ikuhiko Nakase (Osaka Metropolitan University) Unique intracellular delivery technology based on membrane-penetrating peptides with designed engineering
10:00 - 10:30	Coffee & Croissants
10:30 - 10:55	Invited Talk: Helma Wennemers (ETH Zurich) Chemistry in the Extracellular Matrix
10:55 - 11:20	Invited Talk: Thomas Poulsen (Aarhus University) Precision chemistry – from the protein to the proteome
11:20 - 11:45	Invited Talk: Christian Adam Olsen (University of Copenhagen) Targeting epigenetic regulators with peptide macrocycles
11:45 - 11:55	Flash Talk: TBC Title TBC
11:55 – 13:00	Lunch

SESSION 5: CHEMISTRY FOR FRONTIER IMAGING

Sponsored by Novo Nordisk Foundation

13:00 - 14:00	Keynote Talk: Markus Sauer (University of Würzburg) Molecular Resolution Fluorescence Imaging in Cells
14:00 - 14:25	Invited Talk: Ben Schuler (University of Zurich) Interaction dynamics of disordered proteins from single-molecule spectroscopy
14:25 - 14:50	Invited Talk: Nikos Hatzakis (University of Copenhagen) 4D cellular biology and machine learning analysis of cellular responses in delivery of biologicals
14:50 - 15:20	Coffee & Cake
15:20 - 15:45	Invited Talk: Sonja Schmid (University of Basel) Dissecting the Molecular Driving Forces of Life – with single-molecule resolution
15:45 - 16:10	Invited Talk: Jin Zhang (University California San Diego) Illuminating the Biochemical Activity Architecture of the Cell
16:10 - 16:20	Flash Talk: TBC Title TBC
16:20 - 16:40	Coffee

CLOSING SESSION

Sponsored by Novo Nordisk Foundation

16:40 - 17:40	Keynote Talk: Morten Meldal (University of Copenhagen) The Application of Click Chemistry in Chemical Biology
17:40 - 17:50	Award Ceremony: For best poster and flash talk (sponsored by Lundbeck Foundation)
17:50 – 18:00	Closing remarks: Birthe B. Kragelund (ISBUC Chair)
19:00 - onwards	Gala dinner at UCPH Festsal