# EARLY CAREER DIFFRACTION METHODS SEMINAR 2026

**SUNDAY 19TH JULY**

| Time | Session / Activity |
|---|---|
| **11:00-13:00** | **Arrival and Registration** |
| **13:00-14:00** | *Light Welcome Lunch* |
| **14:00-15:30** | **Intro and Keynote Session** |
| **14:00-14:15** | **Welcome from the Chairs**<br>**Maggie Klureza** *(University of Hamburg, Germany)* / **Anaïs Chretien** *(Stanford University, USA)* |
| **14:15-15:30** | **Keynote Talk**<br>**Montserrat Soler Lopez** *(European Synchrotron Radiation Facility, France)*<br>"Understanding Alzheimer's Disease Across Scales: My Journey Through Integrative Biology" |
| **15:30-16:30** | *Break* |
| **16:30-18:30** | **Two Methods Are Better Than One: Paired Techniques for Biological Investigation**<br>Discussion Leader: **Diana Gaman** *(University of Leeds, UK)* |
| **16:30-16:35** | Welcome & Introduction |
| **16:35-16:55** | **Swati Aggarwal** *(European Spallation Source ERIC, Sweden)*<br>"Beyond Cryo: Room-Temperature X-ray Insights into UrdA" |
| **16:55-17:15** | **Johan Glerup** *(University of Gothenburg, Sweden)*<br>"Time-Resolved Studies of Nitric Oxide Turnover in Cytochrome C Oxidase" |
| **17:15-17:35** | **Juneina Omeiri** *(Institute of Structural Biology-DYNAMOP, France)*<br>"Studying Photoswitching in a Novel Photochromic Flavoenzyme–Inhibitor Complex by Time-Resolved Crystallography" |
| **17:35-17:45** | *Break* |
| **17:45-18:05** | **David Buckley** *(University of Missouri – Columbia, USA)*<br>"Visualization of Covalent Intermediates and Conformational States of Proline Utilization A by X-Ray Crystallography and Molecular Dynamics Simulations" |
| **18:05-18:25** | **Gabriela Schröder** *(MAX IV Laboratory/Lund University, Sweden)*<br>"Neutron Protein Crystallography of the Macrophage Migration Inhibitory Factor Reveals a Key Water in the Tautomerase Mechanism" |
| **18:25-18:30** | Final Discussion |
| **18:30-20:00** | *Dinner* |

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**SUNDAY 19TH JULY**

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| **20:00-21:30** | **Poster Session** |
| **20:00-20:30** | Group 1 presenting |
| **20:30-21:00** | Group 2 presenting |
| **21:00-21:30** | Group 3 presenting |

**MONDAY 20TH JULY**

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|---|---|
| **09:00-11:00** | **Processing & Evaluating Crystallographic Data**<br>Discussion Leader: **Matteo Magri** *(European Synchrotron Radiation Facility, France)* |
| **09:00-09:05** | Welcome & Introduction |
| **09:05-09:25** | **Robert Bosman** *(University Medical Center Hamburg-Eppendorf, Germany)*<br>“Anisotropic Multiplicity: Understanding Structure Factor Sampling in Serial Crystallography” |
| **09:25-09:45** | **Sebastian Bielfeldt** *(DESY, Germany)*<br>“Vacuum Matching: Calculating Extrapolation Factors in Low-Occupancy Time-Resolved Crystallography” |
| **09:45-10:05** | **Bhawna Chaudhary** *(University of Warsaw, Poland)*<br>“Improving MicroED Structure Refinement with Advanced Scattering Models” |
| **10:05-10:15** | *Break* |
| **10:15-10:35** | **Gayathri Yuvaraj** *(Lund University, Sweden)*<br>“Quantum-Refinement for Time-Resolved Crystallography” |
| **10:35-10:55** | **Dimitris Triandafillidis** *(University of Hamburg, Germany)*<br>“From clusters to clusters” |
| **10:55-11:00** | Final Discussion |
| **11:00-11:30** | *Break* |

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**MONDAY 20TH JULY**

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|---|---|
| **11:30-13:00** | **Career Panel: Navigating Career Paths in an Evolving Structural Biology Landscape** |
| **11:30-11:50** | Introduction by Discussion Leader:<br>**Jeney Wierman** *(Cornell University/CHESS, USA)* |
| **11:50-12:50** | Panel Discussion:<br>**Swati Aggarwal** *(European Spallation Source ERIC, Sweden)*<br>**Daniele de Sanctis** *(European Synchrotron Radiation Facility, France)*<br>**Nicholas Devenish** *(Diamond Light Source, UK)*<br>**Briony Yorke** *(University of Leeds, UK)* |
| **12:50-13:00** | Final Discussion |
| **13:00-14:00** | *Lunch* |
| **14:00-16:00** | Free / Discussion Time |
| **16:00-16:30** | *Break* |
| **16:30-18:30** | **Probing the Small-Scale Interactions that Drive Protein Function**<br>Discussion Leader: **Virginia Apostolopoulou** *(University of Hamburg, Germany)* |
| **16:30-16:35** | Welcome & Introduction |
| **16:35-16:55** | **Helen Ginn** *(University of Hamburg/DESY, Germany)*<br>“Allosteric effects on catalysis through the lens of proton network communication” |
| **16:55-17:15** | **Dilip Narayanan** *(University of Copenhagen, Denmark)*<br>“Frag2Drug - UCPH's Fragment-Based Screening and Drug Discovery Facility” |
| **17:15-17:35** | **Tim Gitzinger** *(University of Hamburg, Germany)*<br>“Linking Structure to Energetics: Characterising the Stress-Strain Relationship of Proteins” |
| **17:35-17:45** | *Break* |
| **17:45-18:05** | **Maria Spiliopoulou** *(University Medical Center Hamburg-Eppendorf, Germany)*<br>“Unravelling Ligand-Binding Dynamics: Advancing Structural Biology with Time-Resolved Crystallography” |
| **18:05-18:25** | **Lei Wang** *(Stockholm University, Sweden)*<br>“Microcrystal-Based Flash Ligand Soaking and Complex Structure Determination Using Electron Diffraction” |
| **18:25-18:30** | Final Discussion & Wrap-up |
| **18:30-20:00** | *Dinner* |

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