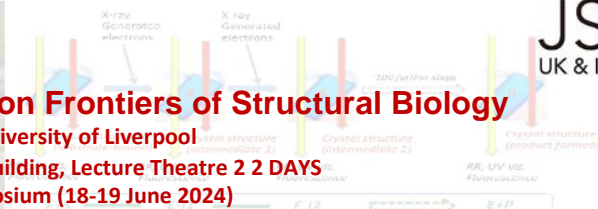


UK-Japan symposium on Frontiers of Structural Biology

University of Liverpool

Life Sciences Building, Lecture Theatre 2 2 DAYS
Symposium (18-19 June 2024)



18th June (Day One Schedule)

9:00-9:10 Opening remarks : Tariq Ali (Pro-Vice-Chancellor Global Engagement and Partnerships), Alan Partridge Executive Director, National Laboratories: Large Scale Facilities at the STFC and Samar Hasnain

Session one - Infra-structure session: Chairs - Tariq Ali (PVC, UoL) and Alan Partridge (STFC)

9:10-9:40	Tetsuya Ishikawa (RIKEN) Masaki Yamamoto (RIKEN)	Upgrade of SPring-8 (SPring-8-II) Development of automated high-throughput MX beamline at SPring-8
9:40-10:05		
10:05-10:30	Mike Hough (Diamond)	<i>In situ</i> room temperature methods to determine structures of proteins and protein ligand complexes
10:30-11:00	Chris Schofield (Oxford)	Time resolved structural studies on oxygenases
11:00-11:30	So Iwata (Kyoto Univ.)	Four-Dimensional Structural Analysis of Membrane Proteins and Its Application to Drug Discovery
11:30-12:00	Keiichi Namba (Osaka Univ)	Recent progress in electron cryomicroscopy for structural life sciences
12:00-12:25	Stephen Muench (Leeds)	Development of approaches for sample preparation and time- resolved studies by single particle cryo-EM

LUNCH at the Victoria Gallery Museum

Session two - Neutron / cryoEM session: Chairs - Ken Anderson (ILL) and Sonia Rocha (ISMIB)

13:30-13:55	Katsuhiro Kusaka (Cross) Taro Tamada (QST)	The IBARAKI Biological Crystal Diffractometer at J-PARC 13:55-14:20 Neutron Crystallography
14:20-14:45	Matthew Blakeley (ILL)	Neutron diffraction studies of proteins reveal details of protonation, hydration and H-bonding
14:45-15:10	Svetlana Antonyuk (Liverpool)	High resolution cryoEM structure of cytochrome bc1
15:10-15:35	Keitaro Yamashita (Uni Tokyo)	cryo-EM single-particle structure refinement
15:35-16:00	Chai Gopalasingam (RIKEN)	Exploration of nitric oxide reductase malfunction with single-particle cryoEM
16:00-16:25	Luning Liu (Liverpool)	Structural insights of photosynthetic supercomplexes
16:25-16:50	Marcus Gallagher-Jones (RFI)	Emergence of electron diffraction for protein nanocrystallography - key challenges

17:00-17:50 PLENARY PUBLIC LECTURE – Chair Prof Tim Jones (Vice Chancellor, UoL) Richard Henderson (MRC LMB) - cryoEM revolution; Lowering the entry barrier to cryoEM.

DINNER FOR SPEAKERS AND GUESTS hosted by the Vice Chancellor and Samar Hasnain (By invitation)

19th June (Day Two Schedule)

Session three – Synchrotron and X-ray Free Electron Laser: Chairs Colin Miles (BBSRC's Bioscience for Advanced Manufacturing and Clean Growth) and Naoto Kobayashi (JSPS)

9:30-10:00	Michihiro Suga (Okayama Univ)	SR and SFX applications for a photosynthetic water oxidation reaction
10:00-10:30	Robin Owen (Diamond)	Fixed targets for serial crystallography at SACLA and Diamond
10:30-11:00	Takehiko Tosha (Univ. Hyogo)	SR and SFX Applications for Redox Enzymes
11:00-11:30	Samuel Rose (ESRF)	Unravelling the catalytic mechanism of a metalloenzyme from X-ray-driven molecular movies and on-line spectroscopy
11:30-12:00	Takashi Kumasaka (JASRI)	Crystallography of Protein Dynamics at SPring-8

LUNCH at the NOVOTEL hotel

Session Four – Understanding complex systems : Chair Pat Eyers (BCSB, Liverpool)

13:45-14:15	Shigeki Owada (SACLA)	Resent approaches for the time-resolved SFX at SACLA
14:15-14:45	Takeshi Murakawa (Osaka Medical and Pharmaceutical University)	Catalytic mechanism of copper-containing amine oxidase revealed by SFX
14:45-15:30	Judy Hirst (Cambridge)	High-resolution cryoEM structures of respiratory complex I in energy-transducing membranes

15:40-17:00 PLENARY PUBLIC LECTURES – Chair Prof Tim Jones and Prof Steve Holloway

Sir Tom Blundell (Cambridge) – Exploiting CryoEM and AI Machine Learning in Drug Discovery Targeting Cancer and Mycobacterial Infections.

Harren Jhoti (President and CEO, Astex Pharmaceuticals) – 'From Lab to establishing a structure-based drug discovery company - Astex Pharmaceuticals'