

# Fraser Armstrong's Pt Jubilee

## A Meeting of Minds, Mechanisms and Memories

22nd-23rd August, 2024

St Johns College, Oxford

### Thursday 22nd August 2024

#### Registration, Lunch and Symposium Photograph

12:00 to 12:50 Arrival, registration and lunch in Garden Quad Reception Room  
12:50 to 13:00 Photo in Garden / Garden Quad auditorium, weather dependent

#### Session 1: Garden Quad Auditorium

13:00 to 13:30 **Professor Fraser Armstrong**  
Welcome and Opening Remarks  
13:30 to 13:45 **Professor Julea Butt, University of East Anglia**  
Wired for Life  
13:45 to 14:00 **Professor Judy Hirst, University of Cambridge**  
High-resolution structures of respiratory complex I in energy-transducing membranes by single-particle cryoEM  
14:00 to 14:15 **Professor Anne Jones, Arizona State University**  
Supramolecular Assembly of Redox Proteins into Nanowires  
14:15 to 14:30 **Dr Christophe Léger, Directeur de Recherche for the Laboratoire de Bioénergétique et Ingénierie des Protéine, Marseille**  
Changing the apparent properties of hydrogenase by embedding them in redox polymer films

#### Break: Garden Quad Reception Room

14:30 to 15:30 Coffee / tea and biscuits

#### Session 2: Garden Quad Auditorium

15:30 to 15:45 **Professor Sean Elliott, Boston University**  
The critical role of redox carriers in low-potential biological reductions: a ferredoxin story  
15:45 to 16:00 **Professor Lars Jeuken, Leiden University**  
Redox regulation of activity of *Mycobacterium tuberculosis* cytochrome bd  
16:00 to 16:15 **Professor Kevin Hoke, Berry College**  
Ligand exchange rates in cytochrome c revealed through cyclic voltammetry  
16:15 to 16:30 **Professor Kylie Vincent, University of Oxford**  
Combining structures, electrochemistry and spectroscopy: new angles on hydrogenase mechanism  
16:30 to 16:45 **Professor Alison Parkin, University of York**  
Fourier transform bioelectrochemistry  
16:45 to 17:00 **Dr Maxie Roessler, Imperial College London**  
Tracking unpaired electrons in redox reactions

#### Celebration Dinner

18:00 to 19:00 Pre-dinner drinks in Canterbury Quad / Garden Quad Reception Room, weather dependent  
19:00 to 21:30-ish St Johns Dining Hall

### Friday 23rd August 2024

#### Session 3: Garden Quad Auditorium

09:00 to 09:15 **Michael Lukey, Cold Spring Harbour Laboratory, New York**  
Targeting glutamine metabolism for breast cancer therapy  
09:15 to 09:30 **Dr Bonnie Murphy, Max Planck Institute of Biophysics in Frankfurt**  
Snapshots of anaerobic CO<sub>2</sub> fixation  
09:30 to 09:45 **Dr Chris Blanford, University of Manchester**  
Automated detection of airborne fungal pathogens using biomimetic materials  
09:45 to 10:00 **Dr Rhiannon Evans, Head of Molecular Biology and Enzyme Production, HydRegen Ltd**  
From hydrogenase mechanisms to hydrogenase applications

#### Break: Garden Quad Reception Room

10:00 to 10:30 Coffee / tea and biscuits

#### Session 4: Garden Quad Auditorium

10:30 to 10:45 **Dr Vincent Wang, National Sun Yat-Sen University**  
Understanding multi-electron and multi-step electrocatalysis: from a metal complex to a metal complex containing 3D framework  
10:45 to 11:00 **Dr Kouros Ebrahimi, King's College London**  
Fraser's Lab, the kick-start of my journey into the world of bioinorganic immunology  
11:00 to 11:15 **Dr Bhavin Siritanaratkul, University of Liverpool**  
Beyond the Catalyst: Designing Electrolyzers and Processes for CO<sub>2</sub> Reduction  
11:15 to 11:30 **Dr Clare Megarity, University of Manchester**  
Electrochemical Control of Jam-packed Enzyme Cascades  
11:30 to 11:45 **Professor Liyun Zhang, Nankai University**  
Biological Synthesis and Sensing at the Photoelectric Interface  
11:45 to 12:00 **Organising Committee: Dr Clare Megarity, Dr Rhiannon Evans and Prof. Alison Parkin**  
Closing remarks