



# Journey of a Molecular Detective

*David Sherratt*

*Retirement Symposium  
September 20<sup>th</sup> 2021  
Department of Biochemistry  
University of Oxford*

## Programme

9:00 – 9:20 **Welcome and Introduction**

Francis Barr, Head of Biochemistry Department  
David Sherratt FRS

Session 1 **Sussex**

9:20 – 9:30 Chair, Mick Chandler, Georgetown University,  
Washington DC, USA

9:30 - 9:55 Claudio Stern, FRS, J.Z. Young Chair of Anatomy, Department of Cell  
and Developmental Biology, UCL, London  
*An embryo detective on a quest to understand the molecular genetics of  
identical twins*

9:55 – 10:20 Gordon Dougan, FRS, University of Cambridge, UK  
*Plasmids and transposons and a public health emergency*

10:20 – 10:45 Lorraine Symington, Harold Ginsberg Chair of Microbiology & Immunology,  
Columbia University, USA  
*Mechanism and Regulation of DNA End Resection*

10:45 – 11:15 Break

Session 2 **Glasgow**

11:15 – 11:25 Chair, Marshall Stark, Institute of Molecular, Cell and Systems Biology,  
Glasgow University

11:25 – 11:30 Colin Stirling, President and Vice-Chancellor, Flinders University,  
Adelaide, Australia  
*Video message*

11:30 – 11:55 Stephen Bell, Department of Biology, Indiana University,  
Bloomington, USA  
*Chromosome Archae-tecture*

11:55 – 12:20 Stephen Kowalczykowski, Department of Microbiology and Cellular Biology,  
University of California, Davis, USA  
*tbc*

12:20 – 12:45 Neil Johnson, Physics Department, George Washington University,

Washington DC, USA

*What's wrong with Maths? Biochemistry, Immunology, Covid and Beyond*

12:45 – 14:00 Lunch

Session 3     **Oxford**

14:00 – 14:10 Chair, Bernard Hallet, Louvain Institute of Biomolecular Science and Technology, Belgium

14:10 – 14:35 Dale Wigley FRS, Department of Infectious Disease, Imperial College, London  
*Machines that mess with nucleosomes*

14:35 – 15:00 François-Xavier Barre, Institute of Integrative Cell Biology, CNRS, Université Paris Sud, Gif-sur-Yvette, France  
*Use and origin of the Chromosomally encoded site-specific recombination (Xer) machinery*

15:00 – 15:25 Jan Löwe FRS, MRC Laboratory of Molecular Biology, Cambridge, UK  
*Biological Nanomachines*

15:25 – 15:55 Break

Session 4     **Oxford**

15:55 – 16:05 Chair, Kim Nasmyth FRS, Department of Biochemistry, University of Oxford

16:05 – 16:15 Russell Brown, Hawkins and Brown, London (*Biochemistry architects*)

16:15 – 16:40 Rodrigo Reyes-Lamothe, Department of Biology, McGill University, Montreal, Canada  
*Replisome strategies to avoid hazards during genome duplication*

16:40 – 17:05 Christian Lesterlin, Molecular Microbiology and Structural Biochemistry, CNRS-UMR, Lyon, France  
*Bacterial DNA conjugation in real-time*

17:05 – 17:30 Anjana Badrinarayanan, National Centre of Biological Sciences, Bangalore, India  
*Searching for homology: in vivo mechanisms of bacterial homologous Recombination*

17:30 – 17:35 Concluding Remarks

17:40 – 19:00 Biochemistry Reception

19:00 - Dinner at Trinity College (by invitation)



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