

CAMBRIDGE BIOSCIENCES DTP SYMPOSIUM 2025

22nd July 2025, Crausaz Wordsworth Building, Adams Road
Robinson College



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KEYNOTE SPEAKER PROFILES



Prof. Ben Lehner

Group leader at the Centre for Genomic Regulation in Barcelona and the Head of Generative and Synthetic Genomics at the Sanger Institute. He works at the interface of genetics, systems biology, and evolution to understand how genetic variation leads to differences in disease and drug response. He is particularly interested in the predictability of biological systems and how mutations interact to influence phenotype.



Prof. Hagan Bayley

Professor of Chemical Biology at the University of Oxford. His research group integrates protein chemistry, molecular genetics, biophysics, and cell biology to investigate both fundamental and applied aspects of engineered membrane proteins for biotechnological applications, as well as the fabrication of 3D living and synthetic tissues. Hagan is the co-founder of Oxford Nanopore Technologies, developing nanopore sequencing technologies for real-time analysis.



Prof. Anne Ferguson-Smith

Executive Chair of the BBSRC where she leads the UK's strategic investment in bioscience research and innovation. She is a renowned mammalian developmental geneticist, genome biologist and epigeneticist at the University of Cambridge serving as the Arthur Balfour Professor of Genetics with a particular focus on epigenetic inheritance for health and disease.



Prof. Alex Webb

Professor of Plant Biology and Head of Circadian Signal Transduction Group at the University of Cambridge. He studies circadian rhythms and how plants perceive and respond to environmental cues such as light and temperature. His research integrates molecular, physiological, and computational approaches to understand how biological clocks control plant growth and productivity.



Dr. Francesca Cesari

Chief Biological, Clinical and Social Sciences Editor at Nature, with over a decade of experience in editorial and scientific publishing. With a background in the biological sciences, she leads editorial content, strategic direction, and team management. Previously, she held several editorial roles at Nature journals, including Senior Editor at Nature Reviews Molecular Biology and Nature Cell Biology. She additionally served as Stem Cell and Development Editor at Nature.

SYMPOSIUM PROGRAMME

ARRIVAL 8:30 – 9:15

WELCOME 9:15 – 9:30

SESSION 1 9:30 – 10:35



Prof. Ben Lehner – ‘Mutate everything’

Eve Stalker – *Identifying epigenetic features that influence Cas9-mediated translocations*

Nicole Rudi – *Cocaine- and amphetamine-regulated transcript (CART) peptide induces Ca²⁺ responses in sensory neurons innervating the colon*

COFFEE BREAK

SESSION 2 11:05 – 12:10



Prof. Hagan Bayley – ‘Emerging applications of engineered nanopores’

Sara Chelaghma – *Functional rewiring of autophagy machinery for plastid organelle biogenesis in apicomplexan parasites*

Carla Briggs – *The role of F-box 6 in Plasmodium development and differentiation*

LUNCH

SESSION 3 13:10 – 14:00



Prof. Anne Ferguson-Smith – ‘From genome organisation to research organisations... how on Earth did that happen?’

Jeanne Lefèvre-Laoide – *Transitioning from contractility to protrusion at mitotic exit*

SYMPOSIUM PROGRAMME

POSTERS 14:00 – 15:00

SESSION 4 15:00 – 16:05



Prof. Alex Webb – ‘Plants, clocks, time and space’

Harry Taylor – Epigenetic Regulation of Disease Resistance in Tomato: Characterizing the Role of H3K9me2 and Developing Targeted Epigenetic Editing Tools

Emily Oren – Cell Division as a Mechanical Regulator of Arabidopsis Growth

COFFEE BREAK

SESSION 5 16:20 – 17:20



Dr. Francesca Cesari – ‘Scientific Publishing – behind the scenes at Nature’

Poster & Presentation Awards

Closing remarks

DRINKS 17:20 – 18:20

PRESENTERS DINNER 19:30

Bill’s, Cambridge

**Student
Poster Polls**



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POSTER LIST

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| 1 | Rowda Bahir | Regeneration of the mouse heart 7-days Post-Myocardial Infarction through the activation of Myc and Cyclin T1. |
| 2 | Beth Harris | Investigating the cell envelope of <i>Orientia tsutsugamushi</i> using cryogenic focused ion beam transmission electron microscopy |
| 3 | Adam Agbamu | Determining the membrane integration mechanisms of <i>Salmonella</i> virulence proteins |
| 4 | Frances Aylward | Investigating maturation of the obligate intracellular bacterium <i>Orientia tsutsugamushi</i> |
| 5 | Milena Malcharek | Characterisation of Peptide Agonists' Binding Affinity and Kinetics at Amylin Receptors |
| 6 | Maegan Green | Harnessing Genetic Diversity Without Compromising Local Adaptation in Wheat Breeding |
| 7 | Angela Shang | Molecular mechanism of action of a novel $\alpha 3$ -selective GABAA receptor nanobody |
| 8 | Julia Stewart-Wood | It's about time: Conserved and divergent functions of EARLY FLOWERING 3 in wheat circadian oscillators. |
| 9 | Tara Davis | The Role of the Gut Microbiota in Pyrrolizidine Alkaloid N-Oxide Toxicity |
| 10 | Clara Pecci Terroba | Layer-specific cortical mechanisms underlying visual perceptual learning |
| 11 | Harry Taylor | Epigenetic Regulation of Disease Resistance in Tomato: Characterizing the Role of H3K9me2 and flg22-Priming |