

## Programme for the 21<sup>st</sup> RSC Nucleic Acids Forum - 11<sup>th</sup> July 2025

**09:20–10:15** – Registration and Coffee

**10:15–10:30** – Short introduction by Dr Marco Di Antonio / Welcome by Dr Michael Booth

### Session 1 – Chair: Sritama Bose

**10:30–10:50** – Corinna Schlosser (UCL) “Breaking Barriers – Development of targeting peptides for enhanced delivery of antisense oligonucleotides to the brain”

**10:50–11:10** – Disha Kashyap (Oxford) “Engineering antisense oligonucleotides for targeted mRNA degradation through lysosomal trafficking”

**11:10–11:30** – Malou Coche (Dublin) “Prodigiosin Modified Triplex-Forming Oligonucleotide Hybrids Enable Autocatalytic DNA Cleavage”

**11:30–11:50** – Debashis Dhara (Oxford) “Synthesis and Properties of Densely Functionalised Charge Neutral Phosphothiotriester Oligonucleotides”

### Careers Event Sponsored by Glen Research – Chairs: Ellen Parkes and Victoria Kamperi

**11:50–12:35** – Panel discussion with Stacey-Lynn Paiva (Senior Editor, Nature Chemistry), Hannah Pendergraff (Project Leader, Evotec), and David Hammond (Patent Attorney, Haseltine Lake Kempner LLP)

**12:35–13:35** – Lunch and Poster Presentations (13:05–13:20 even, 13:20–13:35 odd)

### Session 2 – Chair: Jack Hardwick

**13:35–13:55** – Sophia Fountain (Sheffield) “qqFRET: A Direct Method for Monitoring DNA Allostery”

**13:55–14:15** – Alexia Rottensteiner (UCL) “A DNA nanodevice that measures the nanomechanics of live-cell membranes”

**14:15–14:35** – Korak Kumar Ray (Imperial) “ANKLE1 is a DNA branch-point processing endonuclease stimulated by mechanical tension”

**14:35–15:35** – Poster Presentations (14:35–15:05 even, 15:05–15:35 odd)

### Session 3 – Chair: Yiliang Ding

**15:35–15:55** – Daniel Whitaker (UCL) “Non-enzymatic aminoacylation of RNA”

**15:55–16:15** – Johann Fritzen (Mainz) “Programmable DNA Protonuclei Reveal Hidden Determinants of Protein Phase Separation in Nuclear-Mimetic Environments”

**16:15–16:35** – Alissa Drees (Cambridge) “Illuminating G-quadruplex stability by optical high-throughput sequencing”

**16:35–16:55** – Thomas Maher (Imperial) “Interrogation of the nuclear G quadruplex interactome through SG4-directed proximity labelling”

**16:55–17:00** – Announcement of ChemGenes Early Career Oral Presentation Prize Winner and Poster Prizer Winners, and then Closing Remarks

**17:00–18:00** – Wine Reception and Networking Sponsored by Merck