

Programme for the 21st RSC Nucleic Acids Forum - 11th 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