31ST UK ANNUAL RNA POLYMERASE WORKSHOP

11-12 APRIL 2019, OXFORD

PROGRAM

THURSDAY, 11TH APRIL 2019

13:00 – 13:10 **Welcome** (Dennis Sciama Lecture Theatre, Denys Wilkinson Building, Department of Physics, Keble Road, Oxford)

13:10 – 13:50
Richard Ebright (Rutgers University, New Jersey, USA)
Half-nucleotide translocation in sequence-dependent pausing by RNA polymerase: single-molecule picometer-resolution nanopore tweezers (SPRNT)

13:50 – 14:10
Joanne Hothersall (University of Birmingham)
A new generation of inducible promoters for bacterial recombinant protein production

14:10 – 14:30
Abhishek Mazumder (University of Oxford)
Coupled conformational changes in RNA polymerase and promoter DNA on-pathway to open complex formation

14:30 – 14:50
Fuzhou Ye (Imperial College London)
Structural basis of transcription inhibition by the Ocr DNA mimic protein of bacteriophage

14:50 – 15:10
Stephan Uphoff (University of Oxford)
Visualizing the regulation of the bacterial DNA damage response using single-cell and single-molecule imaging

15:10 – 15:30 ***Coffee break*** *(Dennis Sciama Lecture Theatre Foyer)*

15:30 – 15:50
Abby Smith (University of Bristol)
Design of synthetic transcription factors

15:50 – 16:10
Milija Jovanovic (Imperial College London)
The RtcR CARF domain from E. coli affect activities of non-cognate bacterial enhancer-binding proteins

16:10 – 16:30
Hamed Mosaei (Newcastle University)
Novel natural rifamycin active against rifampicin resistant RNA polymerases

16:30 – 16:50
John Harbottle (Newcastle University)
Ureidothiophene inhibits open complex formation by targeting sigma subunit region 1.2

16:50 – 17:10
Fabian Blombach (University College London)
Open complex formation and promoter-proximal pausing mediate global transcription regulation in archaea

17:10 – 17:25
Mark Harmon & Beata Klejevskaja (Oxford Nanoimaging)

17:30 – 18:30 ***Poster session*** *(Fisher Room, Denys Wilkinson Building)*

19:15 ***Dinner*** *(Deneke Dining Hall, Lady Margaret Hall)*

FRIDAY, 12TH APRIL 2019

9:00 – 9:20
Lidia Vasilieva (University of Oxford)
Mechanistic insights into transcription termination of RNA polymerase II

9:20 – 9:40
Hafez El Sayyed (University of Oxford)
Studying NusG-mediated transcription-translation coupling in live bacteria using single-molecule tracking

9:40 – 10:00
Heesoo Uhm (Seoul National University, University of Oxford)
Single-molecule FRET studies on the cotranscriptional folding of a thiamine pyrophosphate riboswitch

10:00 – 10:20
Duy Khanh Phung (University College London)
Functional analysis of NusA paralogues in Sulfolobus

10:20 – 10:40
Ludovic Sauguet (Institut Pasteur Paris)
Structure of the DP1-DP2 PolD complex bound with DNA and its implications for the evolutionary history of DNA and RNA polymerases

10:40 – 11:00
Simona Pilotta (University College London)
Structural basis of RNAP inhibition by the viral regulator RIP from the Acidianus two-tailed virus

11:00 – 11:20 ***Coffee break*** *(Dennis Sciama Lecture Theatre Foyer)*

11:20 – 11:40
Amy Switzer (Imperial College London)
Transcriptional landscape of long-term nitrogen starved Escherichia coli

11:40 – 12:00
Josh McQuail (Imperial College London)
An unusual feature in the post-transcriptional landscape of long-term nitrogen starved Escherichia coli

12:00 – 12:20
Emily Warman (University of Birmingham)
Properties and directionality of intragenic promoters in *E. coli*

12:20 – 12:40
James Haycocks (University of Birmingham)
Regulation of natural competence in *V. cholerae*

12:40 – 13:00
Prateek Sharma (University of Birmingham)
Expression of MarA induces the formation of *E. coli* persister cells

13:00 – 13:20
Alexandre D'Halluin (University College London)
Identification and characterisation of a regulatory RNA, antisense of an IS481 transposase and the fimbriae serotype 2 genes in *Bordetella pertussis*

13:20 *Closing remarks*

Sponsored by Oxford Nanoimaging