**Second Birmingham Symposium on**

**Genome Structure and Function**

**From genome stability and genetics to gene expression control**

**Thursday 4th - Friday 5th July 2019**

**University of Birmingham**

**Leonard Deacon Lecture Theatre**

**The Medical School**

**Day 1**

 9:00 – 10:00 Registration and coffee (Wolfson Common Room)

10:00 – 10:05   Introduction into the BCGB (Conny Bonifer)

10:05 – 10:15 Professor Tim Softley

 (Pro-Vice Chancellor – R&KT)

**Session 1 - Chair: Saverio Brogna**

10:15 – 10:45 Nick Proudfoot

***Distinguishing and defining the coding and non coding transcriptomes in the mammalian genome***

10:45 – 11:05 Ildem Akerman

***A predictable conserved DNA sequence signature defines human core DNA replication origins***

11:05 – 11:25 Matthias Soller

***mRNA cap 2’-O-ribose methylation regulates translation required for reward learning in Drosophila***

11:25 – 11:40 Ahmet Berkyurek

***An alternative pathway comprising PARP (poly-ADP ribosyl polymerase) enzymes silences retrotransposons in the C. elegans germline***

11:40 – 12:10 John Mattick

***Most of the human genome is not junk***

12:10 – 13: 30 **Lunch and posters (Wolfson Common Room)**

**Session 2 - Chair: Eva Petermann**

13:30 – 14:00: Keith Caldecott

 ***DNA strand break repair and human disease***

14:00 – 14:20 Anne Donaldson

 ***How RIF1 splice variants protect cells from replication stress***

14:20 – 14:40 Anna Liza Piberger

***Homologous recombination at bulky DNA adducts depends on single-stranded gap formation by PrimPol***

14:40 – 14:55 Agata Stodolna

***Modelling radiosensitivity in rectal cancer with patient derived organoids***

**15:00 – 15:30: Coffee**

**Session 3 – Chair: Rui Monteiro**

15:30 – 16:00 Tim Humphrey

 ***Histone H3K36 trimethylation, genome stability and cancer***

16:00 – 16:20 Peter Cockerill

***Subtype-specific regulatory network rewiring in acute myeloid leukaemia***

16:20 – 16:35 Sophie Kellaway

***Pathogenic RUNX1 mutants cause different malignancies by specifically altering the epigenome***

16:35 – 17:15: Frank Grosveld

 ***Transcription and genome architecture***

17:15 – 19:30 **Posters, Wine Reception and Nibbles**

**Wolfson Common Room**

**19:30 Invited speaker’s dinner**

**Day 2**

**Session 4 – Chair: Marco Saponaro**

9:00 – 9:30 Jesper Svejstrup

***Deciding where to end the message: mRNA anti-terminator proteins***

9:30 – 9:50 Constanze Bonifer

***Robust hematopoietic specification requires the ubiquitously expressed Sp1 and Sp3 transcription factors***

9:50 – 10:10 Aga Gambus

***Ubiquitylation drives replisome unloading in S-phase and in mitosis***

10:10 – 10: 25 Rachel Bayley

***H3K4 methylation by SETD1A regulates RIF1-dependent DNA repair***

**10:30 – 11:00: Coffee (Wolfson Common Room)**

**Session 5 - Chair: Paul Badenhorst**

11:00 – 11:30 Wendy Bickmore

  ***Enhancer function in the 3D genome – a TAD more complicated***

11:30 – 11:50 Csilla Varnai

***Chromosome dynamics and homolog pairing in mouse pre-implantation development***

11:50 – 12:10 Joan Boyes

***Cut-and-Run: A New Mechanism by which V(D)J Recombination causes Genome Instability***

12:10 – 12:25 Anand Singh

 ***The RNA helicase UPF1 prevents intranuclear mRNA aggregation***

**12:25 – 14:00 Lunch and posters (Wolfson Common Room)**

**Session 6 - Chair: Paloma Garcia**

14:00 – 14:30: Frank Hirth

***Gene expression gone wrong: the case of TDP-43 in dementia and motor neuron disease***

14:30 – 14:50 Ruth Densham

***Isomerisation of phospho-BRCA1-BARD1 promotes Replication Fork Protection***

14:50 – 15:10 Ferenc Mueller

***4D imaging reveals a cell cycle-coordinated transcription compartment encompassing the first gene activation in the embryo***

15:10 – 15: 25 Rhuba Al Maghrabi

***Generation and characterisation of human induced pluripotent stem cells from patients with myelodysplastic syndromes***

15:25 – 15:45 Poster prizes

15:45 – 16:30 Amanda Fisher

 ***Epigenetics and inheritance***

16:30 Concluding remarks

End of meeting

**Party in the IBR common room**