

## 2023 Birmingham Centre for Genome Biology Symposium 29/30<sup>th</sup> June Programme.

University of Birmingham Medical School Leonard Deacon Lecture Theater and Wolfson common room.

<b>BCGB SYMPOSIUM THURSDAY 29<sup>TH</sup> JUNE 2023</b>		
09:00	Registration	Wolfson Common Room
09:50	Welcome + Introduction to BCGB	Ferenc Mueller
	<b>Session 1: DNA Repair and replication</b>	<b>Chair:</b> Martin Higgs
10:00	The SWI/SNF chromatin remodelling complex prevents genome instability in G quadruplex containing chromatin	Jessica Downs (ICR, UK)
10:25	Loss of Ezh2 function remodels the DNA replication initiation landscape	Ildem Akerman
10:40	Initial processing of perturbed replication forks regulates repair pathway choice at ALT telomeres	Ronan Broderick
10:55	DONSON facilitates Cdc45 and GINS chromatin association and is essential for DNA replication initiation	Aga Gambus for Georgia Kingsley
11.10	The SPATA5-SPATA5L1 ATPase complex direct replisome proteostasis to ensure genome integrity	Martina Foglizzo (Leeds UK)
11:25	Flash Poster Session (odd numbers) 5 minute sponsor presentation	5 posters each 2 min person
11:45	Lunch and poster session (odd numbers) Wolfson Common Room	Poster Panel Judges:
	<b>Session 2: Gene regulation in blood cells</b>	<b>Chair:</b> Conny Bonifer
13:30	Genome form and function	Matthias Merckenschlager (Imperial UK)
13:55	Transcriptional Control of Embryonic Blood Cell Development	Bertie Gottgens (Cambridge UK)
14:20	A Leukemic stem cells hijack lineage inappropriate signalling pathways to promote their growth	Sophie Kellaway
14:35	The molecular basis of T cell memory	Peter Cockerill
14:50	Rapid establishment of a tumour-retained state curtails the contribution of conventional NK cells to anti-tumour immunity in solid cancers	David Withers
15:05	The alternative Nucleosome Remodeling Factor complex sustains acute myeloid leukemia by regulating the accessibility of insulator regions	Aliaksandra Radzisheuskaya (ICR UK)
15:20	Afternoon Tea. Wolfson Common Room	
	<b>Session 3: RNA in genome regulation</b>	<b>Chair:</b> Teresa Carlomagno
15:50	Mechanistic insight into the mRNA poly(A) tail machinery	Lori Passmore (Cambridge UK)
16:15	RNA-editing based approaches identify the function of an RNA-Binding Protein network promoting cancer stem cell survival	Diu Nguyen (QMUL UK)
16:40	Transcription initiation site choice precedes mTOR-dependent RNA metabolism and defines cancer differentiation and radiotherapy sensitivity	Joe Wragg
<b>16:55</b>	<b>Keynote Speaker introduction</b>	Conny Bonifer
17:00	Weird nuclear noncoding RNAs regulating DNA methylation, transcription, DNA replication, and DNA trinucleotide repeat expansion	Keynote Daniel Tenen (Harvard USA)
17:30	Poster Session (all numbers) and Wine Reception Wolfson Common Room	
	<b>19:30 Speaker's dinner (Edgbaston Park Hotel)</b>	

<b>BCGB SYMPOSIUM FRIDAY 30<sup>TH</sup> JUNE 2023</b>		
	<b>Session 4: DNA repair and Cancer</b>	<b>Chair: Jo Morris</b>
09:00	The role of PARPs in DNA repair and genome stability	Nick Lakin (Oxford UK)
09:25	Combining radiotherapy with inhibitors of the DNA damage response: effects on glioblastoma and the normal brain	Anthony Chalmers (Glasgow UK)
09:50	RNA Polymerase II major subunits overexpression induces genome instability and deregulates transcription	Martina Muste Sadurni
10:05	Recent and ongoing early Phase trials involving DNA damage repair inhibitors in relapsed/refractory paediatric cancer patients and potential implications for translational research and new paediatric and adult cancer trials	Susanne Gatz
10:20	Parse Biosciences Sponsor Talk	
10:25	Coffee Break Wolfson Common Room	
10:55	Phosphorylation of ubiquitin as a novel post-translational modification in the double strand break response	Abigail Farrell
11:10	Comparative Functional Analysis of Toxicity Responsive Genes in Daphnia and Mouse Hepatocytes	Shay Glasgow
11:25	REC drives recombination to repair double-strand breaks in animal mtDNA	Hansong Ma
11:40	Flash Poster Session (even numbers)	5 posters each 2 min person
12:00	Lunch and poster session (even numbers) Wolfson Common Room	Poster Panel Judges:
	<b>Session 5: Gene regulation in development and disease</b>	<b>Chair: Rui Monteiro</b>
13:30	Deciphering the roles of telomerase in multi-tissue senescence and inflammation, using the zebrafish model	Catarina Henriques (Sheffield UK)
13:55	A Cytokine signalling reprograms the gene regulatory network of FLT3-ITD Acute Myeloid Leukaemia in response to FLT3 inhibition: A crucial role of RAS and RUNX1 in overcoming drug resistance	Daniel Coleman
14:10	Runx1 is a Key Transcription Factor That Drives Synovial Fibroblast Pathogenicity in Rheumatoid Arthritis	Chris Mahoney
14:25	Investigating the Relationship Between Genome Structure and Function at the Globin Locus	Douglas Higgs (Oxford UK)
14:50	Coffee Break Wolfson Common Room	
15:20	Mechanisms of extreme long-range gene regulation in human craniofacial development	Hannah Long (Edinburgh UK)
15:45	Gene expression dynamics in the Drosophila embryo	Hilary Ashe (Manchester UK)
16:10	Paloma and Clare	
<b>16:25</b>	<b>Keynote Speaker introduction</b>	Peter Cockerill
16:30	The lymphomyeloid bridge: transcription factors and the epigenome in early T cell development	Ellen Rothenberg (CalTech USA)
17:00	Talks and Poster Awards	
17:10	Concluding remarks	