Chromatin and Epigenetics:

from single-cells to multicellular systems

University of Essex, Colchester, September 13, 2019











- 8.30-8.50 Registration (foyer of the Essex Business School)
- 8.50-9.00 Welcome
- 9.00-9.15 **Darren Taylor** (Miguel Branco Lab, QMUL).

A novel approach to epigenomic profiling of repetitive elements at the single copy level

9.15-9.30 **Graeme Birdsey** (Imperial College London)

The transcription factor ERG regulates super-enhancers associated with an endothelial-specific gene expression program

9.30-10.45 **Sankari Nagarajan** (Jason Carroll Lab, CRUK Cambridge)

Epigenetic regulation of breast cancer treatment response by a chromatin remodelling complex protein ARID1A

9.45-10.00 **Antonio Marco** (University of Essex)

The evolution of cancer microRNAs is driven by regulatory network constraints

10.00-10.25 Lars Jansen (University of Oxford)

Chromatin-based epigenetic inheritance: Lessons from the mammalian centromere

- 10.25-10.50 Coffee break and poster viewing (foyer of the Essex Business School)
- 10.50-11.30 Keynote talk: <u>Julie Ahringer</u> (Gurdon Institute, Cambridge) *Genome architecture and regulation*
- 11.30-11.45 <u>Gi Fay Mok</u> (Andrea Münsterberg Lab, University of East Anglia)

 Characterizing the dynamic epigenome-transcriptome landscape that controls formation of the vertebrate body axis
- 11.45-12.00 <u>Sara Lopez-Gomollon</u> (David Baulcombe Lab, Uni of Cambridge)

Genome-wide analysis of sRNAs and DNA methylation as regulators of transgressive phenotypes in plants

- 12.00-12.15 <u>Abdulkadir Abakir</u> (Alexey Ruzov Lab, University of Nottingham) N6-methyladenosine regulates the stability of RNA:DNA hybrids in the chromatin of human cells.
- 12.15-13.25 Lunch and poster viewing (foyer of the Essex Business School)
- 13.25-13.50 Nick Gilbert (MRC IGMM, Edinburgh)

Regulation of large-scale chromatin architecture in human cells

- 13.50-14.05 <u>Javier Antunez-Sanchez</u> (Jose Gutierrez-Marcos Lab, Uni of Warwick)

 Novel components involved in heterochromatin formation in plants
- 14.05-14.20 <u>Rachel Fellows</u> (Patrick Varga-Weisz Lab, Babraham Institute, University of Cambridge & University of Essex)
 Histone crotonylation links gene expression to the microbiome in the colon
- 14.20-14.35 <u>Chris Clarkson</u> (Vlad Teif lab, University of Essex)

 The DNA sequence-dependent strength of CTCF binding determines
 - asymmetric chromatin boundaries

 4.35.14.50 Effic Kostaroli (Queen's University of Relfact)
- 14.35-14.50 <u>Effie Kostareli</u> (Queen's University of Belfast)

 Ibrutinib affects epigenome in Chronic Lymphocytic Leukaemia
- 15.50-15.05 <u>Ben Skinner</u> (University of Essex)

 Mapping chromosome positions using nuclear cartography
- 15.05-15.30 Coffee break and poster viewing (foyer of the Essex Business School)
- 15.30-15.55 **Sara Buonomo** (University of Edinburgh)

Uncoupling nuclear architecture and replication timing

15.55-16.10 Nicolae Radu Zabet (University of Essex)

Dissecting the mechanisms that control Topologically Associated Domains in Drosophila

- 16.10-16.25 <u>Tyler Gorrie-Stone</u> (Leo Schalkwyk Lab, University of Essex)

 Tools for the new generation of EWAS
- 16.25-16.40 Martina Rimoldi (Paul Flicek Lab, EMBL-EBI)

Co-evolution of transcription factor binding and DNA methylation in mammals

16.40-16.55 **Mikhail Spivakov** (Imperial College London)

The role of architectural proteins in facilitating enhancer-promoter contacts 16.55-17.00 Closing remarks