DAY 1 PROGRAMME: Wednesday 23rd September 2020

WELCOME & INTRODUCTION
10.00 BST  Wendy Bickmore, University of Edinburgh

BREAKOUT ROOMS
10.10  1-2 hosts per room (Meet and Greet/ Meeting goals) – please join us at https://us02web.zoom.us/j/89917141357?pwd=MzNkNzJCMXNDQXFVNm0vU0VEbmE4QT09 Meeting ID: 899 1714 1357 Passcode: 379222)

10.30  SESSION 1 - CELL TRANSITIONS IN HUMAN DISEASE
Chairs: Alessandro Brombin and Liz Patton MRC Human Genetics Unit, The University of Edinburgh
Kathy Niakan - The Francis Crick Institute
Naomi Habib - The Hebrew University of Jerusalem

SELECTED TALKS FROM ABSTRACTS
11:20  Single cell RNA-sequencing identifies a novel pro-regenerative macrophage subpopulation following acetaminophen-induced liver injury.
Dyana Markose - The University of Edinburgh
11:35  Deciphering the mechanisms driving human Dupuytren's disease at single-cell level.
Ross Dobie - The University of Edinburgh
11:50  Myeloid heterogeneity in progression and regression of experimental kidney disease.
Bryan Conway - The University of Edinburgh
12:05  Single cell RNA-seq profiling of murine endothelial cells in response to pulmonary arterial hypertension.
Julie Rodor - The University of Edinburgh

12:20 LUNCH

13.00  SESSION 2 - ANALYTIC AND TECHNICAL APPROACHES
Ailith Ewing and Chris Ponting
13.00  Applying spatially-resolved single-cell genomics to mammalian gastrulation
John Marioni - European Bioinformatics Institute
13.25  Challenges in constructing gene network interactions using single-cell RNA-seq data.
Ava Khamseh – MRC Human Genetics Unit, The University of Edinburgh
13:50  Transcription dynamics in single cells
Timothee Lionnet - NYU Grossman School of Medicine

SELECTED SHORT TALKS FROM ABSTRACTS
14:15  Milo: Differential cell state abundance testing using kNN-graphs.
Mike Morgan - CRUK - Cambridge Institute, University of Cambridge

14:30 BRIEF BREAK

14:45  scMET: Bayesian modelling of DNA methylation heterogeneity at single-cell resolution.
Catalina Vallejos - MRC Human Genetics Unit, The University of Edinburgh
15:10  Computational approaches to modelling cell state transitions.
Magnus Rattray - University of Manchester
15:35  Using single cell genomics to investigate the fibrotic niche of human liver cirrhosis.
Neil Henderson - The University of Edinburgh

16:00  BRIEF CHAIRS REVIEW
Chris Ponting and Liz Patton
16:15  END OF DAY 1
DAY 2 PROGRAMME: Thursday 24th September 2020

09:30 BST SESSION 3 - CELL TRANSITIONS IN DEVELOPMENT AND HAEMATOPOIESIS
Chairs: David FitzPatrick and Jana Travnickova, MRC Human Genetics Unit, The University of Edinburgh

09.35 Investigating human blood development at the single-cell level.
Ana Cvejic - The University of Cambridge

SELECTED SHORT TALKS FROM ABSTRACTS

10:00 Functional diversification of SRSF protein kinase to control ubiquitin-dependent neurodevelopmental signalling.
Greg Finlay - The University of Dundee

10:15 Deciphering visceral adipose tissue heterogeneity.
You Ying Chau - The University of Edinburgh

10.30 The rise and fall of the Thymic Epithelial Cell: a single cell journey through ontogeny.
Jeanette Baran Gale - MRC Human Genetics Unit, The University of Edinburgh

10:55 BREAK

11:10 Neuronal diversification and lineage recording during development.
Bushra Raj – Harvard University

11.35 Decoding the developing immune system.
Muzlifah Haniffa - The University of Newcastle

12:00 LUNCH

12.45 SESSION 4 - CELL TRANSITIONS IN CANCER
Chairs: Jeanette Baran Gale and Neil Henderson

12.45 Nongenetic mechanisms of tumour evolution and therapy resistance.
Chris Marine - Laboratory for Molecular Cancer Biology (VIB-KU Leuven)

13:10 Discovery of novel melanocyte cell populations in zebrafish.
Liz Patton – MRC Human Genetics Unit, The University of Edinburgh

SELECTED SHORT TALKS FROM ABSTRACTS

13:35 Heterogeneous cell subpopulations characterise melanoma residual disease.
Jana Travnickova - MRC Human Genetics Unit, The University of Edinburgh

13:50 Histone 3.3 G34R/V mutant high-grade gliomas depend on a neuronal cell of origin.
Selin Jessa - McGill University

14:05 Transcriptomic states: The heterogeneity of high grade serous ovarian carcinomas
Thomas Parry, Cancer Research UK Edinburgh Centre, The University of Edinburgh

14:20 SESSION 4 - CELL TRANSITIONS IN CANCER (CONTINUED)
Chairs: Jeanette Baran Gale and Neil Henderson

Tamir Chandra - The University of Edinburgh

14:45 Single cell approaches reveal similarities in clonal haemopoiesis and myeloproliferative neoplasms.
Kristina Kirschner - University of Glasgow

15:10 BREAK

15:25 SELECTED TALK PRIZES (Sponsored by Disease Models & Mechanisms)

SUMMARY AND CHAIRS PANEL DISCUSSION
Liz Patton and Chris Ponting

16:00 END OF DAY 2 MEETING