24 June, Day 4

CI

Theme Sessions
Cellular Identity

CELLULAR IDENTITY: METABOLISM AND CELL IDENTITY 7:30 – 9:15 EDT

Sponsored by: Agilent Technologies, Inc.
Chairs: Alexander Aulehla, EMBL, Heidelberg, Germany
Erica Watson, University of Cambridge, UK

HIRA AS A PHENOTYPE INHERITANCE BIOMARKER IN A MOUSE MODEL OF TRANSGENERATIONAL EPIGENETIC INHERITANCE
Erica Watson, University of Cambridge, UK

METABOLIC REPROGRAMMING DURING EARLY EMBRYOGENESIS REGULATES 2-HG/A-KG HOMEOSTASIS TO PROMOTE ERASURE OF HISTONE METHYLATION
Jing Zhao, Zhejiang University, China

SENESCENCE SUPPRESSION TO IMPROVE MATURATION OF STEM CELL-DERIVED CARDIOMYOCYTES
Jessica Garbern, Harvard University, USA

LIPID DROPLET AVAILABILITY INFLUENCES NEURAL STEM/PROGENITOR CELL PROLIFERATION AND DIFFERENTIATION INTO NEURONS
Marlen Knobloch, University of Lausanne, Switzerland

REGULATION OF HEMATOPOIESIS BY MITOCHONDRIAL DYNAMICS
Yan Yao, Columbia University Medical Center, USA

RIBOSOMAL RNA BIOGENESIS REGULATES MOUSE 2C-LIKE STATE AND 2-CELL/4-CELL EMBRYO DEVELOPMENT BY NUCLEOLAR PHASE-SEPARATION-MEDIATED 3D CHROMATIN STRUCTURE REORGANIZATION
Hua Yu, Zhejiang University, China

METABOLIC CONTROL OF MOUSE EMBRYONIC PATTERNING AND TIMING
Alexander Aulehla, EMBL, Heidelberg, Germany

CELLULAR IDENTITY: CELL STATE TRANSITIONS IN DEVELOPMENT AND CANCER 14:00 – 15:45 EDT

Sponsored by: The Allen Institute for Cell Science
Chairs: James Briscoe, The Crick Institute, UK
Allon Klein, Harvard Medical School, USA

INTEGRATING LINEAGE-TRACING WITH SINGLE CELL GENOMICS ACROSS EXPERIMENTAL DESIGNS
Allon Klein, Harvard Medical School, USA

SINGLE CELL CHROMATIN ACCESSIBILITY PROFILING OF MOUSE HEART DEVELOPMENT IDENTIFIES REGULATORY UNDERPINNING OF CARDIAC OUTFLOW TRACT ANOMALIES
Sanjeev Ranade, The Gladstone Institutes, USA

DEVELOPMENTAL CHROMATIN PROGRAMS DETERMINE ONCOGENIC COMPETENCE IN MELANOMA
Arianna Baggiolini, Memorial Sloan Kettering Cancer Center, USA

INTEGRATIVE MOLECULAR ROADMAP FOR REPROGRAMMING MOUSE FIBROBLASTS INTO INDUCED MYOGENIC STEM AND PROGENITOR CELLS
Inseon Kim, ETH Zurich, Switzerland

ILLUMINATING POST-TRANSCRIPTIONAL REGULATION OF PLURIPOTENT CELL STATE TRANSITION AND CELL FATE AT SINGLE CELL RESOLUTION
Carolyn Sangokoya, UCSF, USA

YAP:NODAL SIGNALING AXIS REGULATES THE CELL FATE PATTERNING IN HUMAN GASTRULOIDS
Eleonora Stronati, Temple University, USA

QUANTITATIVE LANDSCAPES OF CELL FATE DECISIONS
James Briscoe, The Crick Institute, UK

25 June, Day 5

CI

Theme Sessions
Cellular Identity

CELLULAR IDENTITY: EPIGENETIC REGULATION OF CELL IDENTITY

7:30 – 9:15 EDT

Chairs: Maria Elena Torres-Padilla, Helmholtz Zentrum München, Germany
Edda G. Schulz, Max Planck Institute for Molecular Genetics, Germany

DISTAL AND PROXIMAL CIS-REGULATORY ELEMENTS SENSE X-CHROMOSOMAL DOSAGE AND DEVELOPMENTAL STATE AT THE XIST LOCUS
Edda G. Schulz, Max Planck Institute for Molecular Genetics, Germany

DNA SEQUENCE LOGIC AT ENDODERMAL ENHANCERS DETERMINES CELL FATE ALLOCATION THROUGH REGULATION OF FOXA PIONEER FACTOR RECRUITMENT
Ryan Geusz, University of California, San Diego (UCSD), USA

DENSE CHROMATIN AND TRANSCRIPTIONAL PROFILING ALONG HEMATOPOIETIC DEVELOPMENT DELINEATES THE REGULATORY LANDSCAPE OF LINEAGE COMMITMENT AND DIFFERENTIATION
Grigorios Georgolopoulos, KU Leuven, Belgium

GENETICALLY DIVERSE MOUSE EMBRYONIC STEM CELLS ENABLE INFERENCE OF GENETIC REGULATORY STRUCTURE
Lauren Kuffler, Jackson Laboratory/Tufts University, USA

TWO DISTINCT MODES OF CIS REGULATION CONTROL CELL SPECIFICATION IN RESPONSE TO SHH DURING MOUSE SPINAL CORD DEVELOPMENT
M Joaquina Delas, The Francis Crick Institute, UK

GENOME-WIDE CRISPR-CAS9 SCREENING UNCOVERS THE POLYCOMB COMPLEX PRC1.3 AS AN ESSENTIAL REGULATOR OF NAÏVE HUMAN PLURIPOTENT CELL REPROGRAMMING
Adam Bendall, The Babraham Institute, UK

EPIGENETIC MECHANISMS OF CELLULAR PLASTICITY AND REPROGRAMMING TO TOTIPOTENCY
Maria Elena Torres-Padilla, Helmholtz Zentrum München, Germany

CELLULAR IDENTITY: PLURIPOTENCY DYNAMICS

14:00 – 15:45 EDT

Sponsored by: Nanostring Technologie
Chairs: Amander T. Clark, University of California, Los Angeles, USA
Duanqing Pei, Guangzhou Regenerative Medicine and Health, China

INTERCONVERSIONS BETWEEN NAIVE AND PRIMED PLURIPOTENCY AS MODELS TO STUDY CELL FATE CONTROL
Duanqing Pei, Guangzhou Regenerative Medicine and Health, China

COMPREHENSIVE MULTI-OMIC PROFILING REVEALS THE POLYCOMB REPRESSOR COMPLEX PRC2 RESTRICTS HUMAN NAIVE EPIBLAST TO TROPHOBLAST STEM CELL FATE INDUCTION
Vincent Pasque, KU Leuven - University of Leuven, Belgium

THE ETS TRANSCRIPTION FACTOR ERF CONTROLS THE EXIT FROM THE NAÏVE PLURIPOTENT STATE
Maria Vega Sendino, National Institutes of Health, USA

EPITHELIAL TISSUE STRUCTURE REGULATES NAIVE AND PRIMED STATES IN HUMAN PLURIPOTENT STEM CELLS
Ivana Vasic, Gladstone Institutes, University of California San Francisco, USA

CAPTURING PLURIPOTENT CELLS IN 3D SELF-RENEWING EPITHELIAL SPHEROIDS
Marta Shahbazi, MRC Laboratory of Molecular Biology, UK

AMNION-SPECIFIC MARKERS DEMARCATE THE REALM OF VARIOUS HUMAN PLURIPOTENT STATES
Hidemasa Kato, Ehime University, Graduate School of Medicine, Japan

PLURIPOTENCY IN THE HUMAN GERMLINE
Amander T. Clark, University of California, Los Angeles, USA